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MERCHANDISING FRUITS AND VEGETABLES

A NEW BILLION DOLLAR INDUSTRY

BY

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Dedication

To the people of the United States, in whose employ I have found opportunity, stimulation, education, and the joys of service, this volume is hopefully dedicated.

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PREFACE

THE writer has attempted to make this book a distinctly new contribution to the literature of marketing. It attempts to outline the history of a great, modern industry and to sketch its progress as it has been seen at close range. Particular attention is given to those developments which no other author has attempted to discuss. Duplication and restatement of the work of others have been avoided. Subjects which are adequately treated in other works on marketing or in official publications are passed over with few words or are treated from a point of view which it is hoped will be new to the reader.

Such a book cannot be exhaustively complete in itself, for a complete work would involve compilation and repetition, or the restatement of material already in print. The reader should consult the excellent free publications of the Bureau of Agricultural Economics, United States Department of Agriculture, for the details and statistics of marketing specific crops which are here purposely omitted. Many of these bulletins have been prepared under the general direction of the writer and are profusely illustrated with charts and graphs. The determination to make this a distinctly new work on marketing has led to the omission of tabular matter, graphic presentations, and illustrations.

During more than 30 years in the public service, including a connection with the Bureau of Markets (now the Bureau of Agricultural Economics) since the day of its inception, the writer has enjoyed a breadth and intimacy of contact with the fruit and vegetable trade which he could have obtained in no other way. Before entering Government service he was actively engaged in the growing and marketing of these products. He has continued to live upon and operate a farm up to 1927. Meantime official business has taken him into every district of important fruit

and vegetable production in the continental United States.

With this frank statement of the author's background the reader is invited to make his own allowances for probable bias. The work has been done on occasional evenings during 1926-27, while in the thick of the struggle for better conditions in the industry. It is presented with the hope that there may be a useful place for one book on marketing prepared outside the atmosphere of the college and by one whose experience has been investigatory and administrative, rather than pedagogical.

WELLS ALVORD SHERMAN

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MERCHANDISING FRUITS AND VEGETABLES

A New Billion Dollar Industry

INTRODUCTION

We have undertaken this study of marketing fruits and vegetables with the hope that attention may be drawn to the reasons why things are as they are. We have tried to show how the present situation developed rather than to describe it in all its details. The reader will find the major emphasis on the economic development of the industry rather than on its physical aspects, although the two cannot be wholly separated.

As far as practicable the underlying causes or principles of action have been emphasized, yet with no attempt to produce a complete technical textbook on the economics of the industry.

The story does not proceed chronologically from chapter to chapter. Many forces have been at work simultaneously and they have been treated one by one. In several chapters we have sketched a force, principle, or service from its inception to the present. These chapters stand as independent units, each contributing its part to the story as a whole.

This style of presentation was adopted with the hope that it would help to clarify the whole subject. The student should find it easier to follow a thought or principle through to the end and reach his own conclusion as to what is likely to happen next. The general reader can lay the book down at the end of any chapter and take it up again a month later without the necessity of rereading. The business man can turn quickly to the discussion of any one subject and learn what we know about it.

The detailed accounts of the origin and fruition of certain Congressional and Executive actions are presented with the hope that readers may find both encouragement and guidance in their future efforts to secure assistance for further reforms and economic services.

I

THE BACKGROUND OF OUR PRESENT TRADE

Marketing an evolution. Abuses being curbed. Early American conditions. Concentration of production. Conditions in early towns. The first middleman. The public market. Effect of expanding settlement. Increased wholesale dealing. Perishables the exception. Production close to consuming point. A woman's business. Personal contacts. First dealers in perishables. The butcher takes on other lines. The huckster and his service Regulation of middlemen. Dealers in perishables exempt. Should this policy continue? Storage by families. Family canning. Recent transition to commercial supplies. Growth of market gardening. Combined dairying and trucking. Importance of stable manure. Commercial gardening confined to rich soils. Gardening under glass. Changing character of business.

EVERY marketing practice of today is the outgrowth of an older practice. Our approach to a study of modern marketing will be easier and we shall better understand why conditions are as we find them if we keep this fact constantly in mind. No method or system, no agency, and no custom has sprung suddenly into a prominent and secure place in the marketing scheme. No middleman has injected himself into the situation. Each class has been called into being because someone was ready to patronize and pay it for service rather than to continue to do business without it.

There are abuses in the marketing of perishables, but they are being steadily curbed. They arose largely because of the sudden and tremendous expansion of the industry. In emphasizing these abuses many students have overlooked the fact that in no other industry is so large a volume of business done on honor, or under conditions which make it necessary for one party to trust so largely to the good faith of the other. When this confidence is abused, there is naturally a loud protest which may create the impression that things are worse than they are. Before we can analyze present marketing conditions, machinery, and agencies, we must consider what has preceded them.

AMERICAN BARTER

Every writer on economics goes back to barter between primitive man and man as a starting point from which to trace the development of modern merchandising. When America was settled, civilized men found themselves compelled to go back to barter in the conduct of the greater part of their business. In this new country the settlers in the wilderness and on the bleak seacoast needed goods more than gold. The relative unimportance of money in the early days is reflected in the famous dictum of Captain John Smith, "If a man will not work, neither shall he eat."

At first the settlements were grouped around definite centers. Agriculture could not be undertaken where companies of men could not be mobilized to defend property and life. The farmer and his customer in town were near neighbors through force of necessity. There was no place for a middleman in the handling of perishables.

As the villages grew into towns those who had no gardens were supplied in person by those on the outskirts who found it worth while to grow a surplus. Townspeople continued to keep cows, pigs, chickens, and horses to an extent which would not be tolerated today. Why? Because there was no organization such as we now have for distributing perishables. There were no trains, trucks, nor trolleys to bring in the daily milk supply. There were no hard-surfaced roads over which eggs could be hauled with safety and despatch. The ox team was the conveyor of land freight, and the sail boat, rowboat, and raft were utilized on the rivers and bays. There was no such thing as overnight service by water between any important producing and consuming centers.

PASSING OF DIRECT DEALING IN STAPLES

Among the first middlemen handling farm products in America were those who developed water power and began

grinding grain. By grinding for toll the miller acquired grain or its products for sale. It was many years, however, before millers and grain dealers handled even the major part of the feed grains which the towns used. Farmers hauled corn and oats to town and sold direct to those who kept horses or other live stock. The public market is one of the oldest American institutions and persists today chiefly in the regions where it originated as a necessity. The West was settled under different conditions and there the public market never played a prominent part.

As the East became more thickly settled the farmers were safe at greater distances from town. The country was then occupied so far back from the coast towns that many producers lost direct contact with consumers and sold their staples almost entirely to dealers. The dealer came into the producing community, as the consumer could not, for he purchased the wagon load or boat load as it came from the farm and devoted his time to distributing to consumers as the producer no longer could do. So the dealer in staple products, grain, cured meats, hides, furs, wool, and so forth, was patronized by the producers because the farmer found it more profitable to take the dealer's price than to do the soliciting, delivering, and collecting necessary to get the whole of the consumer's dollar. The dealer was patronized by the consumer because it was more convenient to buy from him the quantity and quality wanted and at convenient intervals and with periodical settlements than to await the uncertain visits of the producer. Then as now producers and consumers deliberately chose to accept less from, and to pay more to, the middleman than would be necessary if they dealt directly with each other.

PERSISTENCE OF DIRECT DEALING IN PERISHABLES

The inevitable course of development in America was the building of cities fronting on deep water with a general thinning out of the population toward the frontier. As the

cities grew and an export trade in foodstuffs began to grow, canals and turnpikes were built into the interior to bring to market grain, live stock, and other products which could spend several days or even weeks on the journey. But when the Erie canal was built in 1825 no one in New York City expected to eat lettuce or fresh peaches grown in western New York. When the locks 60 feet deep were cut in the living rock to enable boats to pass the Great Falls of the Potomac, the grain from the Shenandoah Valley was seeking an outlet to tidewater and to the world; but no one pictured Apple Pie Ridge sending hundreds of thousands of barrels of apples annually from that same valley to the Mother Country and contributing to our coast markets from Boston to New Orleans for more than 6 months of the year.

For a century after staples were moving hundreds of miles by river and canal, and long after cattle were being driven from the Ohio Valley to the Atlantic seaboard over well-defined roads, butter and eggs, chickens, fruits, and vegetables were produced in the immediate locality where they were needed. It was largly a woman's business. Women did much of the milking and made all the butter. Women almost always attended to the poultry. The gardens were largely cared for by women and children. To a large extent the surpluses were sold by women and to women.

In the larger cities where much of the trading in perishables was done in the public market, grower and consumer dealt face to face. To a very great extent each grower had his or her own customers and each housewife bought chiefly from certain farmers. The "butter man" or the "egg man" was a producer, not a dealer. In the absence of steam transportation and of refrigeration, how could it be otherwise? The perishables must be produced close to the market. The public market, which had originally served as a general trading place, was given over more and more to perishables. This remains its principal function to this day. But as long

as the trading was done in the market, the old personal contact between country producers and city consumers could be and was maintained.

Thus it came about that the middleman was called into being much later in the marketing of our perishables than he was in the handling of staples. The grain trade, broadly speaking, has existed in America 150 years longer than our trade in perishables. Yet the latter today is by far the more complex in its organization and the more spectacular in its accomplishments.

EARLY MIDDLEMEN HANDLING PERISHABLES

The butcher was the first middleman to give his entire time to handling perishables. Even in the earliest days the average consumer could not buy his meat on the hoof. Owners who had animals for slaughter killed by turns and each sold a large part of his product to others or gave it as a loan to be repaid in kind at his neighbor's convenience.

Obviously no town of any size could be supplied in this way. Furthermore, cattle, sheep, and hogs came to market from distances too great to permit the land transport even of grain. The animals were driven to market. Inevitably they must be sold on arrival. The butcher was a buyer of live stock and grain and a seller of fresh and cured meats and hides. He sometimes had considerable numbers of live animals on hand. He soon began to use natural ice for holding his meat a few days in hot weather, but generally speaking, the butcher of a hundred years ago killed to meet the needs from day to day.

The butcher drove his wagon from door to door and cut from the dressed quarters to suit his trade. Those who came first on the route had their choice of cuts. Those who were last served took what was left. It was almost impossible to refuse a choice cut to Mrs. P. on the ground that it must be saved for Mrs. Q. Such discrimination was permissible only in case Mrs. Q. needed that cut for an invalid.

With the butcher making daily or thrice-a-week rounds; with a place of business always open and an ice box for use in hot weather, what more natural than that he should begin to deal in eggs, in poultry, in butter, and finally to run a butcher shop and green grocery? He was the only man in town equipped to carry over surplus perishables from day to day. His main line demanded such equipment. He offered service of credit and delivery more satisfactory to many customers than that of the visiting farmer. He saved the busy mother the necessity of disposing of her children while she went to market. He bought for less from the farmer and sold for more to the consumer and each was glad to patronize him on that basis. Who can maintain that he forced himself in between producer and consumer and preyed upon both?

Next to the butcher, and almost as early in the field as he, came the huckster. Originally he was a country buyer driving from farm to farm and buying such products as would stand his mode of transportation and which were valuable enough to afford him a living margin. The huckster bought butter, eggs, poultry, dressed hogs, cured meats, pelts, game, honey and so forth. Originally the huckster did not attempt to handle soft fruits and fresh vegetables.

The demand of the cities for more than the local supply and the production of small and irregular surpluses on farms remote from the city, were conditions which called the huckster into being. The load which he brought to town necessitated a relatively heavy transportation expense. The owner of no one item in that load could afford a trip to town to sell it. In many cases the goods would have brought the producer practically nothing had the huckster not furnished an outlet.

At first the huckster delivered his perishables from door to door in the city or sold them in the public market. His quantities were necessarily larger than those of the individual local producers and the time spent in retailing was greater. Naturally the huckster sought a wholesale outlet.

He first supplied taverns, restaurants, and the like. Naturally he soon began selling everything he could to the butcher, who was a steady customer for his dressed hogs and country cured meats. It is easy to see how the hucksters stimulated the development of a class of middlemen in the cities who dealt more and more largely in perishables.

The butcher and the huckster have been discussed at some length because they are the progenitors of almost every factor engaged in marketing perishables today. They assembled, transported, prepared, preserved, repacked, retailed, delivered, paid cash, extended credit, assumed risks, absorbed shrinkage. They made large profits and suffered heavy losses. In the long run their profits had to pay them for all these losses and risks and for all the expenses incident to their services and give them a living in addition. Today, owing to our immense volume of business and our technical processes, we may appear to require some services not rendered a century and a half ago, but broadly speaking the butcher and the huckster of that period rendered all the economic services performed by all the factors in the present marketing organization.

EARLY REGULATION OF MIDDLEMEN

It is an interesting fact that from the very beginning the miller, who was a middleman handling a staple, was put under the most detailed and rigorous regulation, while the butcher and the huckster were not. Colonial and state laws provided exactly what toll the miller might take. The limits were enforced by penalties which secured compliance. Why was this so? First, the miller was engaged in an essential industry. Everyone must have flour or meal. Second, the number of water-power sites was limited, and in many communities the miller enjoyed a monopoly. At most it would require an understanding among only two or three millers to establish an effective monopoly.

On the other hand, the hazards of the handler of perish-

ables were evidently taken into account. It was realized that he could not establish and maintain a monopoly. The old English common law against forestalling the market was deemed a sufficient safeguard against any unfair practice on the part of the early handlers of perishables. If a huckster bought up all the eggs on the public market some fine morning and proceeded to charge a monopoly price, he might find his feet in the stocks before night, if he was lucky enough to escape more instant and severe punishment at the hands of the populace; but the laws generally did not attempt to limit the profits he might make in the sale of the goods which he brought to the market.

Laws limiting the miller's toll still stand on the statute books of most of the older states. It is a fair question to ask whether conditions surrounding the marketing of perishables have so changed that the handlers no longer bear their original hazards and are now able to establish or maintain a monopoly. If so, we have abundant precedent to justify their restraint by law. As our study of present-day marketing proceeds, we may find a basis for satisfactory answers to these questions.

FAMILY STORAGE AND PRESERVATION OF PERISHABLES IN TOWNS

It is impossible to give an exact date at which commercial canning began to influence the habits of city residents. It is certain, however, that up to about 1875 practically every family in our villages, towns, and cities, which lived in any considerable degree of comfort, stored and preserved its own supplies of summer perishables for winter use. The thrifty housewife bought strawberries or peaches in season and made preserves or jam for winter use. Apples and potatoes were bought and stored in the family cellar. In colonial times these buying habits were well-nigh universal and they were modified very slowly during the first century after the Revolutionary War.

The winter supply of perishables was put away by the average family during the summer and autumn and was of local origin. When the canning process came into general use, family canning was for some years far more important than commercial canning. We still have an immense although unmeasured quantity of perishables canned and preserved at home.

Until after our Civil War most of our butter was produced on farms and was largely a summer product. The packing away of home-made butter during the pasture season for use in winter was a general custom. Such butter, packed in large glazed jars, often stood for many months in the running water of the farmer's springhouse, to be sold by the jar or tub to city customers for their winter supply.

Reasons for some of the conditions existing today cannot be appreciated unless we bear in mind the newness of present processes. The transition from dependence on family preservation and storage of perishables to dependence on commercial preservation and shipped-in supplies is much more recent than the transition from dependence upon the family spinning wheel and loom to dependence upon the products of the textile mills.

INTENSIVE LOCAL PRODUCTION

The conditions described led naturally to the development of a relatively intense production of perishables close to the markets. Unfortunately there are no statistics to show what quantities were marketed prior to 1914, and our information for the years since that date is confined to shipments in car lots and to the number of car lots unloaded in certain markets.

The fact of importance to the student of marketing is that we had a highly developed trucking, fruit growing, and dairy industry that supplied several millions of city dwellers, with the greater part of the production hauled into town by nearby producers. Most of these supplies passed

through the hands of only one middleman, and the grower was well posted on values, for he was well acquainted with the market.

The milkman drove from door to door and served his customers by dipping from a 5-gallon or 10-gallon can. The producer of milk gave way to the middleman in the marketing of his product more slowly perhaps than did any other producer. There has also been more local legislation concerning the milk supply and its handling than in connection with any other perishable. The dealer can conform to city regulations more easily than can the producer, and quick transportation has brought so much milk within the dealer's reach that direct retailing by the individual dairy farmer is now largely a thing of the past in the larger cities. It is still prevalent in small towns which cannot support dealers handling milk exclusively.

As winter dairying developed, it was largely combined with summer trucking. Commercial gardening was wholly dependent upon an abundant supply of stable manure. Ability to turn manure into cash through the medium of truck crops was one of the advantages of dairy farming compared with other branches of agriculture. Truck growers who did not keep cows hauled manure from the livery stables in the cities in which they sold their produce. It is difficult now to visualize the conditions which existed just before the refrigerator car and the ice plant brought distant areas into the field of potential and practicable supply, and before the trade in commercial fertilizers made possible the use of poor, sandy soils, for truck crop production.

GARDENING UNDER GLASS

The growing and marketing of products raised under glass deserves special notice. The early use of the greenhouse was to furnish vegetables and flowers out of season. In the entire absence of supplies shipped fresh from warmer climates, the commercial greenhouse had the local field to

itself. It could sell to private families, hotels, or the best retail stores. By a selection of products for successive plantings it could enjoy a very long season free from any direct competition with crops grown out of doors. The commercial greenhouse antedates the refrigerator car. For many years the growth of the industry was limited only by the wealth of the nearby city population.

Changed conditions of production, transport, and sale have forced almost revolutionary changes in greenhouse management and in the selection of products grown. While the local trucker remains dominant in many of our markets to this day, during the height of his season, the greenhouse operator has found it almost impossible to compete with fresh vegetables from Florida, Texas, and California, offered in practically unlimited quantity throughout the winter.

Certain vegetables, however, notably cucumbers and tomatoes, can be grown to greater perfection in hothouses than in any of the present areas of winter production. There are in the aggregate many acres under glass devoted chiefly to growing these products.

II

EFFECTS OF INDUSTRIAL EXPANSION AND CITY GROWTH

Increased proportion of nonproducers. Increased market demand. Concentration of production. Advent of wholesale dealer. Restrictions on street peddling. Growers abandon this business. Changes in consumer's habits. Family cellars disappear. Influence of immigration. The "Green Grocer." Land values and furnace heat. Advent of commission merchant. The needs which brought him. Relations with growers. Advantages to growers. Wholesale speculation. Special functions. Advantages of cash business. Commission man's temptation to buy. Buyer's urge to handle as agent. Mixing functions. Modern aspects of problem. Perishables strictly seasonal. Efforts to prolong the season. Multiplying varieties. Tendency now reversed. Shipments from Norfolk, Va. Unsatisfied demand. Coastal trade. Dealer seeks supplies. Financing distant production. New risks and losses. Peruvian guano. Effects of a waiting demand. Advances on crops. Risk sharing.

As the population of individual cities began to grow into the hundreds of thousands, the number of those who produced none of their foodstuff increased proportionately faster than did the total population. The home gardens of the townspeople became relatively less and less important. Larger and larger numbers of city residents bought their perishables daily. The inconvenience of going to a public market for such supplies grew greater as the cities extended over wider areas. The corner grocery began to cater to the wants of those in the immediate vicinity, and the larger downtown stores gave improved delivery service.

EARLY WHOLESALE TRADE IN PERISHABLES

When the development of any city had reached this stage, it furnished a market for truck and fruit crops produced on a relatively large scale. The women's gardens of colonial days were utterly inadequate. Highly skilled gardeners gave their entire time and attention to vegetable production.

Demand was active and growing. Supply followed. Truck gardening, berry and fruit growing were generally considered more profitable than general farming, but only those who were located within easy reach of the market were privileged to engage in them. The nearby market was essential as an outlet and as a source of fertilizing materials. Thus the wholesale production of perishables tended to concentration in limited districts and in relatively few hands. These larger growers catered to the wholesale market. They sought purchasers who would buy the wagonload. They did not wish to spend time in selling in smaller quantities than by the barrel, bushel, or hundredweight. Their teams and hands were needed at home for production.

There was a tendency near every city for the truck growers to divide rather definitely into two classes. One group sold chiefly at retail either from door to door or in the public market. They grew the largest possible assortment of products and tried to prolong their selling season. Almost invariably a member of the family drove to market and did the selling. Retail marketing was not a hired man's job. It involved handling the entire family income.

The other group grew larger acreages of each truck crop and hauled full loads of each to market in its turn. They usually limited their selection of crops to those best adapted to their lands and tried to avoid growing too many sorts. They were wholesale producers who came into being only as the towns reached the proportions of real cities. They were in the field, however, in large numbers and with considerable investments in high-priced land and equipment long before the South and Pacific Coast began to compete with them.

The very conditions which made wholesale production possible also made a change in city distribution inevitable.

RESTRICTIONS ON PEDDLING

As city streets became more congested, traffic regulations were imposed. Teams might not be left standing in the

streets unattended while deliveries were made to families on second floors. The farmer who sold from house to house needed a driver. Two were required to do what one had done before. The cost of retail distribution had increased.

As a wholesale supply of perishables became available, the professional fruit and vegetable peddler or city huckster appeared. He competed for the house-to-house trade. His activities invited further regulation. Like the milk distributor he could comply with city regulations more readily than could the farmer. So he survives and is an important factor in city marketing today.

The ordinances of many cities still provide that any bona fide farmer may deliver his products from door to door without charge. The whole trend of events, however, has tended to make it less and less profitable for him to attempt it. The very restrictions put upon street selling have operated to confine this business to middlemen. The very small capital required to start a street peddler in business, the rapid turnover, the possibility of handling products so overripe or otherwise damaged that the merchant dare not put them in his store, and the very small units in which he sells, all invite the man of shrewd judgment and small means to start a wagon, truck, or push cart route for the sale of fruits and vegetables.

The advent of the peddler was contemporaneous with the development of the wholesale produce market, and the restrictions placed upon him have done much to give him a clear field for his operations.

CHANGES IN CONSUMER'S HABITS

As land values in our cities have increased, the average family has occupied less ground space. The separate house which was the home of one family gave way more and more to the solid block and later to the apartment house.

As the wood fires of colonial times gave way to coal-burning furnaces heating an entire house from a plant in

the basement, the difficulty of keeping a winter's supply of apples, potatoes, or butter was vastly increased. The frost-proof cellar had become too warm. Everything stored in the basement was covered with dust long before spring. Shrinkage was increased on almost any perishable which might be stored.

If the family occupied an apartment, it frequently had no storage space suitable for keeping supplies of perishables. The ice box would preserve only a few from day to day. Tenement houses given over to industrial workers had no facilities for storage.

The foreign labor which came to our cities was not accustomed to a standard of living which called for six months' supply of foodstuffs of any kind on hand at any one time. They were hand-to-mouth buyers from habit bred of long necessity. They were wholly unaccustomed to the use of ice in the home. If they used it at all it was in small quantity and usually for cooling milk or other drinks.

Under these conditions the number of retail purchases of perishables per capita was multiplied. Delivery became a vastly more important service. In the absence of any system of standardization the housekeeper must see the goods she bought. In fact, all these conditions existed before the invention of the telephone.

Competition for the consumer trade was largely between the public market, the street peddler, and the retail storekeeper, who, up to this time, was usually a handler of meats and poultry products, as well as of butter, fruits, and vegetables. This was the typical "green grocery" of a generation ago. The fruit stand of today is a much later development. Its existence was impossible prior to the manufacture of artificial ice on a commercial scale and the consequent transcontinental shipment of fruits.

Summarizing, we may say that the increase of land values and the introduction of furnace heat have been basic factors in changing almost completely the buying habits of the more prosperous class of urban dwellers. Together they

have forced changes which have vastly increased the cost of the city distribution of perishables to practically all consumers.

ADVENT OF THE COMMISSION MERCHANT

The commission merchant probably preceded the wholesale dealer as an important factor in marketing fruits and vegetables. These functions were, however, closely allied from the first. When a market furnished an outlet for full wagon loads of a single fruit or vegetable and when consumers were buying from a large number of stores and hucksters, there was a definite need and a profitable place for someone who would receive and rehandle the full loads. The retailers also needed a reservoir from which to draw supplies.

Every town had its market days. The retailer soon found that he needed to renew his supply every day. Bad weather frequently interfered with the grower's trips to town, so that supplies did not come in a strictly regular flow. The wholesale producer was glad to have someone hold over a part of his load to sell on the off day.

The commission merchant was the logical product of these conditions. The larger producers unloaded at his door and drove home. The next time they came they collected for the preceding load. They often saw part of their goods sold before they left. They knew exactly how both wholesale and retail prices were going. They could reduce haulings for a few days on many products if the market was overloaded. The man who sold their goods for a definite percentage charge was a friend, not a parasite. He had little opportunity to be dishonest.

At first the commission merchant did not buy very largely on his own account. The risks were too large. Local supplies might flood the market the very day he bought. His position with his farmer patrons was better if he had no goods of his own to compete with theirs.

The farmer who sold through a commission man retained the value of any reputation he might have for pack or grade. His agent was interested only in selling at the best price obtainable. Since the grower was not seeking retail customers, the seller had nothing to gain by concealing the origin of the goods. If the grower's name or mark helped to sell them, it was advantageous to both. Excellent business relationships were established in this way. Instances still are numerous in which responsible wholesale producers near large markets sell entirely through a commission man with whom they are personally acquainted and in whom they have complete confidence.

When the entire product of a large grower is handled year after year by the same commission man, a sure market can be created for that grower's goods if he maintains a superior grade or pack. He need not advertise except on his package or by a name slip inside. There are still many buyers in most cities who prefer home-grown products when they can depend upon their uniformity and quality.

ADVENT OF THE WHOLESALE DEALER

No one can say when the first wholesale buyers appeared. In the fruit and vegetable trade they were in all probability speculators who bought up entire crops of potatoes or apples for resale during the winter. Each was a specializing speculator rather than a general wholesale dealer. Their business was based upon sufficient and suitable frost-proof storage space and sufficient capital to pay cash for their stocks. We have their successors today. In almost every large city there are firms specializing in some one, two, or three of the long-season vegetables or fruits.

The country huckster needed a quick sale for his entire load. He wanted cash to spend on his next buying trip. Frequently he must purchase a return load of supplies for his distant patrons, for he was a common carrier as well as a cash buyer.

The commission man did not wholly solve the huckster's problem, however satisfactory he might be to the nearby large producer. The huckster who left his goods to be sold on commission had but a vague idea as to what he could pay for the next load of goods. He needed to sell for cash that he might know what he had made or lost on his load and what cash prices he should offer. His hides, furs, wool, dressed meats, butter and eggs he sold to dealers, and if he brought in fruits or perishable vegetables he must also have cash for them. We have seen that the latter were not very important items in the huckster's load in the early days, and it is reasonable to assume that the commission man found himself under pressure by the huckster from the very start to give him a cash price and let him go.

The distant producer who made irregular trips and who wanted to spend the proceeds of his load before he left town, preferred the cash sale to the services of the commission man for practically the same reasons that influenced the huckster. He wanted a cash transaction, quickly closed, giving him the greater part of the day in which to do his trading and make the tedious journey home.

The early wholesale dealer was the competitor of the commission man. They both sold to the retail storekeeper, to hotels, to street hucksters, and other handlers or large consumers. Each was under repeated pressure to invade the field of the other. When supplies were light and prices likely to advance the commission man was tempted to make the consignor an immediate return and take the goods to his own account, or to offer a cash price to the patron who particularly needed his cash the same day. This same temptation lies at the root of some of the worst evils of the commission business as it has developed in these later years of enormous trade expansion.

The wholesale dealer naturally hesitated to invest in the face of a falling market. He found difficulty in buying at any price substantially below the returns being made by commission men on similar goods. Therefore, he was often

tempted to offer a very safe cash price but to offer to handle the goods on commission if the owner believed the market conditions justified holding for a higher price.

The student of present-day marketing sees abundant reason to regret the mixing of the functions of the carload dealer and the producer's agent; the buyer and the commission man. He is driven almost irresistibly to the conclusion that this should not be permitted. He sees how very difficult it is under modern conditions for the agent to be true to his principal when he is selling his own goods in competition with those received on consignment. This situation will be discussed later. Our purpose at this point is to bring out the fact that in the early days of the industry the combination of these functions was not so dangerous as it has grown to be now that commission men and others who serve in agential capacities have little if any personal contact with those who entrust them with the sale of goods. In fact, it can hardly be maintained that there was anything reprehensible or very dangerous in the mixing of these functions in the early days of large-scale production when all the perishables were home grown, when no producer shipped to more than one market, and when the distributor operating in numerous shipping districts and with his connections in many markets was utterly unknown.

EFFORTS TO PROLONG THE SEASON

In the early days each fruit and vegetable was alternately in season or out of season. The practically continuous supply which we take as a matter of course was undreamed of. The cellar and the pit held the hardier autumn products, apples, potatoes, root-crops, and a few others, through the winter, but could not bridge the summer interval before the next harvest. Berries and soft fruits, so much in demand, lasted each in turn but a few weeks. Naturally, resort was had to every effort and device to prolong the season.

These conditions stimulated the endless multiplication of

varieties and the planting of everything from the earliest to the latest sort in the same garden or orchard. Carrying quality and ability to "stand up" under several days of transportation, followed by repeated truckings and handlings in the city, were not essential to a desirable commercial sort. In fact, the best variety for family use was the best for the market, provided it was sufficiently prolific.

It is difficult for the student of today to realize that these conditions existed up to the very recent past. The refrigerator car was proved to be practicable in 1872, but it was more than ten years later that its use began to have an important influence on fruit and vegetable marketing. Even then the fruit grower did not foresee the competition of distant areas during his own shipping season. In short, it was good commercial practice for the orchardist to set a large number of varieties and to grow the earliest and latest sorts possible, when many men, still active in agriculture, were organizing their farms during their early manhood.

For the past ten years extension workers, marketing specialists, and the organizers of cooperatives have preached against the planting of more than three or four standard market sorts. The old "family orchard," as it is now called, is the despair of the manager of the cooperative marketing group. The commercial orchard of today, planted since the refrigerator car was developed, located in a region not previously accessible to market, is a three or four variety orchard, sometimes indeed only a one or two variety enterprise. The largest peach orchard in the world is in Arkansas and contains 95% of one variety.

The point to be remembered in this connection is that the orchard of many varieties was a response to an insistent demand for a supply of perishables through a longer season, before we had learned how to extend the area from which to draw. We have noted that the growth of the greenhouse industry was another response to the same demand.

The first revolutionary step in lengthening the season was in the shipment of vegetables by boat from the vicinity of

Norfolk to New York. Prior to 1850, truck shipments by water were being made between those points on a 36-hour schedule, but the boats were small and only small quantities were carried on each trip. These shipments, coming well in advance of home supplies, filled a long-felt need. They were profitable, and the industry grew.

Ever since the World War we have had such a flood of fruits and vegetables in this country seeking a market that the student may easily assume that this condition has always existed, but it has not. There was no general pressure of perishables seeking an outlet until well within the memory of the present leaders in the fruit and vegetable trade. Grain and cattle have gone a begging for a profitable outlet again and again, in fact, periodically ever since the Atlantic Coast has drawn supplies from the Ohio Valley, but with fruits and vegetables it was not so. The supply increased only as growing demand called it into being.

Norfolk, then, did not seek New York as a market nearly so much as New York sought Norfolk as a source of supply. An eager demand awaited the first arrivals. As fast as the means of transport developed, the area of supply was pushed further and further down the coast. Of course, the shipments were not long confined to New York but reached all the intervening points on the coast and soon extended to the industrial cities of New England.

In all our further study of the marketing system, let it be borne in mind that for more than a hundred years after the Revolutionary War our cities furnished a growing demand for fresh green products which was seldom fully met except for an occasional short period of local oversupply of some one product. The city dealer was in touch with this demand. The distant grower was not. The dealer went abroad in search of supplies. The new territory responded to his inducements. The demand was not for something to compete with the home-grown supply but for something to prolong the season. Here is the genesis of our commercial truck crop expansion.

FINANCIAL AID AND JOINT ACCOUNT

Special arrangements were necessary to finance the long-distance truck shipper. He could not deliver daily and collect for the previous day. He was a comparatively heavy producer. His individual shipments were relatively large items in the business of the firm which handled them. Most important of all, from the dealer's point of view, his products served to prolong the season and constituted a net increase in the year's business.

The distant shipper bore risks which the local producer did not. There was the factor of deterioration in transit. It was a new problem. Biological studies had not been planned with any such development in view. In fact, it is only within the last few years that we have begun to understand at all adequately the reasons for many losses in transit and the proper methods of prevention.

The southern shipper, confronted with a new and vastly larger market than he had ever known, was tempted to plunge. Large-scale truck growing called for larger expenditure. The importation of Peruvian guano began about the time Norfolk commenced shipping truck to New York. Here was nitrogen to take the place of the barnyard or livery stable manure on which trucking had always depended and which the southern trucker could not obtain. A larger cash outlay was necessary to produce the southern crop. The hazards of marketing were much greater. The danger of frost and drought were at least as great. Crop failures were at least as frequent. Finally, if he sold on commission as the local trucker did, he entrusted his property to a stranger and awaited the results. Every disappointment aroused suspicion.

Naturally, under these conditions the South was slow in supplying the vast quantities which northern cities stood ready to take. Demand waited on supply. Commission men and dealers were keen competitors for the business. The grower who was disappointed in his returns from one

house shipped his next lot to another. Consignments were vigorously solicited, but the trade soon found that a sufficient and steady supply could not be had by simple solicitation.

Insistent demand finally reached out with money in hand to support a precarious industry on which no banker would make a loan. The solution was to finance the grower while he produced a vastly larger crop than he could do on his own resources and to secure the handling of the crop as a part of the bargain. Dealers began, at first rather modestly, to share the hazards of production. Their own confidence inspired that of the grower.

Long-distance financing of truck crop production, with its innumerable forms of crop contracts, joint-account arrangements, and other devices for securing the final handling of the goods, will be discussed later. We have traced its beginning in this chapter because it was a direct outgrowth of increasing city population and the reaching out of the trade for every source of supply which would help to prolong the season of fresh foods. Exact dates could be obtained only from private records, but there is excellent reason to believe that dealer financing of southern trucking antedates the refrigerator car and was practically coincident with the first liberal use of commercial fertilizers.

III

ARTIFICIAL ICE BRINGS REVOLUTION

Uses of natural ice. Geographical limits. Ocean shipments. Lack in southern interior. First refrigerated shipments. East and West movements exclusively. Michigan to New York. No reicing first shipments. History of refrigerator car development. Dependent on memory. Early construction. Return hauls. Unsuccessful experiments. Developments of the late 80's. Cars privately owned. Fruit industry stimulated railroad ownership. The Pacific Fruit Express. Numbers of cars. Mechanical refrigeration. Artificial ice. Effects on storing animal products. On moving vegetable products. What artificial ice meant. The ice plant in Florida. Commissioner Rhode's statement. Ice supply more important than car. Local ice for Norfolk. For the whole South. Perishables on cheap land. Colored labor. Asiatic. Mexican. The new perpetual vegetable supply. Effects on market gardener. On the commission man. New fruit districts. "Shipping varieties." Abuses of agency. "Fly-by-nights." Gluts and famines. Conditions improving. Shipper's faults. Reasons for "f.o.b. usual terms." Readjustment. Recent official aid. Shortening the local season. Competitive districts. Strawberries. Potatoes: Virginia, Arkansas, Kansas—special variety selections.

NATURAL ice can be had only within definite geographic limits. Its first use for preserving perishables was at and near the place where the ice was cut. Cutting and storing ice had grown to be an enormous business before mechanical refrigeration was developed on a commercial scale.

EARLY COMMERCIAL USES OF ICE

The early commercial uses of ice were for cooling drinks and to help preserve fresh meat and milk in the process of marketing. Country butchers and dairy farmers built ice houses and dammed small streams or caught surface water in shallow ponds as far south as ice 3 inches in thickness was likely to form. Such ice usually can be secured in the eastern mountains as far south as North Carolina and Tennessee; in the rolling farming section east of the mountains, as far south as Central Virginia; in the sandy, tide-

water, trucking area along the coast, very little south of Wilmington, Delaware.

Even at the southern limits here indicated ice was a luxury, and supply usually precarious, the percentage of wastage large, and most houses were empty in late summer before the need of ice had passed. Southern seaport cities secured ice in full boatloads direct from the storehouses on the rivers of Maine. This trade flourished for several months of the year between Maine and Washington and Baltimore. Since it was not practicable to ship ice by rail over any great distance, ice for summer use was practically unknown in the interior south of the latitude of natural supply. This point is important, for it explains why in the old agricultural regions of the South, the truck growing industry has, within the past generation, passed through all the growing pains of a pioneer development. Present-day cotton-marketing methods and organization are the product of the evolution and legislation of at least 150 years. Truck and fruit raised in the cotton belt are marketed by methods evolved within 40 years or less, and with little if any legislation affecting the industry until within the last 12 years.

EAST AND WEST SHIPMENTS

The first important use of ice in transit was for shipments from the northwest to the northeast, not from south to north. The reason has been anticipated. The enterprise was dependent on natural ice and the ice must be available where the shipment originated. The great movement of perishables from west to east was in the hands of the packers. Live cattle came east in trainloads. Cured meats also moved east in great quantities. If the fresh dressed carcasses could be shipped east and marketed successfully, a tremendous advantage would be gained.

So it happened that the first use of refrigerator cars was for shipping meat from Chicago to New York. Weld[1] states

[1] L. D. H. Weld, *Marketing Farm Products.*

that Gustavus F. Swift began to ship meat under refrigeration from Chicago to New York on a large scale in the later seventies. It was 10 years later that important quantities of fresh vegetables began to arrive under ice from Virginia and Carolina coast points.

The use of natural ice became an important factor in the marketing of many perishables produced and consumed in the north. Butter and eggs were packed away in ice houses for long periods. The fresh fish business was wholly dependent on ice during the summer. When refrigerator cars began bringing meat east they could carry fresh fish inland. The production of butter for long-distance shipment naturally developed along the same lines of communication. The grain regions of the north and northwest were also regions in which farm poultry flourished and the dressed poultry and egg trade was stimulated by refrigeration in transit to the East.

Some of the first experiments in shipping fruit in refrigerator cars, or rather in box cars cooled with ice, were in the movement of Michigan fruits to New York City, over the same railway lines on which fresh meat shipments were being made.

At first there was no reicing in transit, for the ice was stowed away in the cars as a part of the load. As the meat packers and others developed better cars, reicing facilities along the routes east of Chicago were provided, and it is probable that a really great business in refrigerated shipments might have grown up dependent entirely upon natural ice, but it could never have included large-scale shipments from any region south of Chesapeake Bay on the Atlantic nor from any point south of the Columbia River on the Pacific Coast.

During the summer of 1924 the California Fruit Exchange in reporting on certain test shipments under refrigeration, made in cooperation with various interested organizations, published a pamphlet containing an excellent summary of what is in print on the development of the refrigerator

car. Since this report will not be found in most libraries it is here quoted at some length.

The history and development of the modern refrigerator car dates back to the early 60's, and no story of modern tests regarding the efficiency of the present-day refrigerator would be complete without a description of exactly how the present car was evolved and the difficulties encountered in the building of the standard type of equipment now placed at the disposal of the shippers in California and elsewhere.

Several writers have made varying attempts at compiling a history of the early railway refrigerator car used in the shipment of perishable products. The principal obstacles which have confronted every writer on this subject are the facts that there are so many conflicting statements relative to the origin and ownership of the first cars, and statistics do not show the number of cars owned over a series of years. Even at the present time information covering modern equipment is quite as obscure. Such history as is in existence is largely based upon the recollection of men who were alive during the period when refrigeration of meats and other products in transit was first introduced.

No means was provided for reicing in transit, and as a consequence the cars (from Chicago) were handled in passenger service as far as Suspension Bridge, New York, where they were made up into "fast freights" and, after a three days' journey, the meats were landed in New York City in good condition. (In box cars carrying 2,000 to 3,000 pounds of ice.)

Thirty box cars fitted with double sides, roof, and floors by Mr. Chandler in 1857 were the real ancestors of the modern refrigerator car. So far as known these cars were the first in which an insulating material against the passage of heat was used. In these cars all the available space in the walls, ends, floor, and roof was packed with sawdust. These cars were constructed with a hole in the floor between the doorways, through which the waste water was discharged. The cars were first loaded with the product, and then a box containing the ice was placed in the doorway. An ice box in the end of the car, suspended by straps, was later installed.

It will be seen that most of the experiments with refrigerator cars were conducted in the shipment of dressed meats and dairy products. The experiments so far (1870) produced encouraging results and as a consequence the industry grew very rapidly. In keeping with American ingenuity, those who were interested in

the designing of refrigerator cars developed the idea that what was being done with meats and dairy products could also be done with fruits, vegetables, or other perishable shipments. In exploiting new fields in the shipment of meat, unless other products could be shipped on the back haul, the cars would have to be returned empty, especially in cases where incoming exceeded outgoing freight in the particular district.

In 1868 Davis (who had patented a refrigerator car) tried one of his cars in the shipment of strawberries from Cobden, Illinois. The car was fitted with a cylindrical container in each corner of the car, in which ice and salt were used as a refrigerant. Such a heavy loss was sustained by the shippers, due to inequality of refrigeration and to the fact that berries near the cylinders were frozen, that the shippers did not make another attempt. Most of the experimental fruit shipments during this period were a failure or only partially successful, on account of the fact that modern re-icing facilities were unheard of, and also much might be said on the ripe condition of the fruit when packed for shipment. Earl (one of the first shippers of fruit with ice) continued with his experiments but procured specially constructed cars with very large capacity ice chambers. His results were greatly improved and the shipment of fruits and vegetables over great distances started beyond all calculations of men of that time.

Norfolk, Virginia, shipped her first vegetables to New York in 1885. The first shipment of strawberries from California landed in New York in 1888. Oranges from California went east in 1888 and from Florida to New York in 1889. All shipments prior to this date were under ventilation.

Gustavus Swift demonstrated that the shipment of dressed meats was practical and plunged his whole resources behind the industry on a large scale. He soon became the owner of over 6,000 cars. Swift was soon followed by Armour, Nelson, Morris, Cudahy, Schwartzchild, and Sultzberger.

After describing some of the early experiments in shipping California fruits to the East under refrigeration in privately owned cars from about 1888 to the early 90's the report continues:

It will be seen that this industry started with the carrying of meat, then dairy products, and finally fruits and vegetables. The experiments were successful and the idea was practical.

Up to this time practically all the equipment was owned by private car lines or individuals and while, in the beginning, the

railroads, on account of the experimental stage of the industry, were not interested in building this type of car, they now became so. From this period up to the present time the railroads have taken the lead in refrigerator car construction and there are now very few privately owned lines in the field, compared to former days. Also, owing to the overwhelming growth and progress in the fruit-shipping industry, it became necessary to provide equipment in the same ratio, involving an enormous outlay of capital beyond the financing ability of most of the privately owned car lines. It is obvious that the problem was solved to the satisfaction of grower, shipper, produce dealer, and all concerned when the railroads took the lead with their facilities to finance such a large undertaking.

The year 1905 seems to be the beginning of the period in which the railroads started to build cars of their own and to acquire cars owned and operated by smaller private car lines. For several years the Santa Fe Refrigerator Dispatch, with 6,000 cars, was the largest railroad-owned car line. In 1906 the Southern Pacific and Union Pacific purchased certain property and interests from Armour and placed orders for the construction of 6,600 cars, which were operated under the Pacific Fruit Express Company, organized and incorporated specifically for the operation of the refrigerator car business of these lines.

An idea of the increasing number of refrigerator cars owned by the railroads and their subsidiary car lines can be gathered from the following figures:

Year	No. of Refrigerator Cars
1885	990
1890	3,398
1895	7,043
1900	10,760
1905	24,570
1921	99,672
Jan. 1, 1924	117,212
July 1, 1924	121,832

Lack of understanding of the theories regarding air circulation and heat transmission was the cause of great losses to shippers and constructors of the early refrigerator cars. In this respect the rule of thumb would not work, and the chemist, engineer, and physicist have been of great assistance to the modern car builder.

ARTIFICIAL REFRIGERATION

The refrigerator car was only a partial success or had been developed to but a fraction of its present efficiency when mechanical refrigeration became a recognized commercial success, and cold storage as we now know it began to affect marketing. Every student of marketing must be impressed by the tremendous advance which the introduction of cold storage made possible and by the profound influence the storage industry now has on the distribution of our perishables. Most writers seem to overlook the fact that its greatest influence on the marketing of fruits and vegetables was not in providing means for holding them for long periods in the markets but by providing artificial ice for use at the point of origin in warm climates and wherever needed in transit. Our flow is from many points of production rather than from storages.

The most marked effect of refrigeration on the poultry, dairy, and meat industries is through its use in preserving the products fresh over long periods. The fresh supply is now distributed evenly over the entire year. The differences in price between seasons of heavy and light production are much less than formerly. Refrigeration in transit is important as an aid in maintaining this even and continuous supply, but without the modern cold storage warehouse we should still have our seasons of surplus production when meats would have to be cured and other seasons when eggs would have to be consumed or wasted. Then would come the winter months of scarcity when good eggs would be very high and the summer months when, as was formerly the case, most of the population would be compelled to resort to cured meats.

The most marked effects of refrigeration upon the marketing of fruits and vegetables is not in holding these products beyond their natural season but in providing a perennial fresh supply through widening the area available for production. It is preservation in transit rather than preserva-

tion in storage which has revolutionized the fruit and vegetable industries and precipitated the modern marketing problem.

THE ICE PLANT

The steam engine revolutionized transportation on water and on land, but it availed nothing when applied to aerial navigation. Professor Langley, of the Smithsonian Institution, built a machine with wings long before the Wright brothers began their experiments. The Wrights, after their own success was won, examined Langley's plans (his plane was wrecked in an attempted flight over the Potomac River) and said that the machine would fly. It failed because of the weight of its steam engine and because the impetus given to launch it caused it to capsize before reaching an equilibrium. It was the invention of a new type of engine using a new fuel and at first devoted to other uses which made the aeroplane possible.

Just so the development of refrigeration and cold storage meant nothing to the South and Far West so long as ice, the heaviest perishable commodity in commerce, must be shipped from its natural source to every point where it was to be used.

L. M. Rhodes, commissioner of the Florida State Marketing Bureau, says in a letter:

> According to the best information we can obtain, ice plants preceded the shipment of commodities under refrigeration. There were some 200 plants making ice in the southern states by the year 1889. Just when the first ice manufacturing plant was operated in Jacksonville cannot be established; it is thought to have been about 1887 or 1888.
>
> During the years 1888 and 1889 there were a few schooners coming into this port (Jacksonville) loaded with ice from northern points. It is not believed by the oldest shippers, however, that much of this ice was used in chilling or refrigerating cars of Florida produce.
>
> J. C. Chace & Company, were among the first to send cars north under ice. Mr. Chace states that their first refrigerated shipments were made during the season of 1890. Prior to that

time scattering shipments were made with ice, chiefly citrous fruit. Other produce moved in small quantity and by express.

Probably the first refrigerated shipments from the South were chilled with ice which had been shipped in sailing vessels from Maine to the southern port, then transferred to ice houses, and finally retailed to the shipper or the private car line owning the refrigerator car. It is certain that there was no reicing on the journey.

Mechanical refrigeration, worked out in the region of natural ice supply, for the purpose of *making the use of ice unnecessary,* was seized upon by every city and town below the natural ice belt as a means of *providing ice* for domestic and commercial use. The "ammonia process" is today making far more ice than it is displacing. It is this ice supply rather than the refrigerator car which has made Florida, Texas, and California regular sources of fruit and vegetable supply for the great markets of the Northeast.

Earlier writers have discussed at length the economic significance of cold storage. We shall avoid needless repetition of their work. We must, however, note the most striking and far-reaching effects of refrigeration in transit.

Correspondence develops the fact that work on the first ice plant in Norfolk, Virginia, began in August, 1891, and that the actual production of ice began in 1892. A second plant followed very quickly and the shipment of ice from Maine to Norfolk ended with the summer of 1892.

It is interesting to note in passing that the truck growing industry is not the only one to be overdone under the stimulus of new conditions. In 1925 there were two ice plants in Norfolk with a daily capacity of 250 tons which had been idle for about three years, and the others in that city were running at about two-thirds of their capacity.

Before the manufacture of ice began in Norfolk it was the custom to put a lump of Maine ice in the center of each barrel of kale and spinach. When the home supply became available, the custom changed to the distribution of large cakes of ice over the top of the load. This is the

usual custom in that section today, and box cars, not refrigerators, are generally used for these products.

TRUCKING ON CHEAP LAND WITH CHEAP LABOR

Up to about 1890 the great cities drew most of their fruits and vegetables from relatively high priced land. These lands were near the centers of population and industry which insured a relatively high scale of wages for laborers on such farms. Outside competition with the local product was almost unknown. Every producing area had its one, natural, nearby market and usually only one. The ice plant and refrigerator cars changed all this with tremendous rapidity.

The ice plant brought the whole South within reach of northern markets at once. It was not a case of a few additional miles added each year to the radius from which supplies could be drawn. New Orleans and Mobile were not far behind the Ohio River cities in freezing their own ice supply from day to day. By the time the South Atlantic cities had secured their ice supply, the Gulf cities had done likewise. The whole South thus became suddenly available as a field for commercial truck crop exploitation.

The available land was almost unlimited in area, and most of it was relatively cheap. Commercial fertilizers had but recently come into general use for field crops but were everywhere available where there was either rail or water transportation. Thus all the friable, sandy lands of the coastal plain became potential truck gardens. All those near any railroad and within a day's run of any city with an ice supply were available whenever capital would venture to exploit them.

Southern labor was cheaper than northern labor. It was ignorant and inefficient and had been trained largely to grow corn and cotton and do other simple tasks performed with crude and heavy tools. But the negro was a hand laborer. The women and children all picked cotton and they could pick strawberries. The hands who "chopped

cotton" could hoe tomatoes and cabbage. Anyone who could "pull fodder" (stripping the blades from the stalk below the ear by hand) could cut spinach or kale. There are large sections of the South in which white labor predominates; but along the coast where commercial trucking began, this was not the case. The labor which went into the actual production of the truck crops was colored.

More recently when southern California began to figure in truck shipment, the labor was largely Asiatic. In the Laredo and Lower Rio Grande Valley districts of Texas the labor for the immense onion and truck acreages is almost wholly Mexican and probably the cheapest labor in the United States today. Whether by accident or design the most striking developments of new trucking areas since the introduction of the ice plant have been where the cheapest labor in the country was found. How has this affected marketing?

THE YEAR-ROUND SUPPLY

We have seen the cities hungrily reaching out for the earliest and the latest fresh fruits and vegetables. Canned goods were the alternative and had assumed an importance which will be considered in another chapter. Water-borne and express shipments from the southern coast gave a much earlier supply than could be produced locally, but the list of products which were successfully shipped was not a long one prior to about 1890.

The local manufacture of ice opened a nation-wide area of supply, and within a relatively short time all the larger markets were supplied with a year round succession of fresh vegetables.

The long-distance shipments at first did not compete directly with the home-grown products. They were usually earlier. Their unit prices in the markets were much higher. They gave place to the home-grown as the season of the latter came on. The last shipments from any southern

district did not compare favorably with the first of the local supply. Yet the effect upon the business of the local grower was twofold; his agent became indifferent to his interests and his season was shortened.

The commission man, paid by a percentage of his gross sales, made much more money from the sale of high-priced, shipped-in goods than from the handling of home-grown stuff which sold at lower prices per package. He had a tendency to cultivate the distant consignor and to neglect the interests of the nearby grower. He frequently had money invested in the southern crop, or handled it on some form of joint account and therefore, if the southern season was late and overlapped the local season he used every effort to force the last of the southern supply on the market. Thus there was a constant pressure tending to shorten the season within which the local supply monopolized the market.

The competition of distant fruits was more serious than that of southern vegetables, for the new fruit districts were developed where there were definite natural advantages. They boldly invaded all the markets regardless of local seasons. The commission man usually had nothing invested in the soft fruit or berries he handled, but he had cogent reasons for preferring these to local goods. They came in gift packages while the local producer who delivered by wagon expected his empties returned. This also was the case with vegetables. Then, too, the distant shipper soon found that his goods were sold on appearance rather than on actual quality. He grew the varieties the dealer suggested. They were "market varieties" or "shipping varieties," as distinguished from the high-quality varieties which the preceding generations of local producers had sought.

ABUSES OF AGENCY

The worst abuses which the produce business has ever known grew rapidly and naturally out of the conditions

brought about by the universal ice supply and the refrigerator car. The wholesale handler of perishables in the city, whether he was a commission man or buyer, was no longer in personal touch with the grower. The distant grower seldom if ever visited the market and usually knew nothing of market prices or of the condition of his goods on arrival except what the receiver chose to tell him.

The inevitable happened. There was "easy money" for the unscrupulous man who could get goods sent to him on commission from afar. The industry became infested with a class of parasites who preyed upon the shipper and interfered with the business of the legitimate trader. Those without capital or credit lived on the sale of goods which they secured on consignment by circulating false market quotations on impressive stationery. The printer is no respector of persons. He will set up just as attractive a letterhead for the "fly-by-night" as for the best firm in town.

The term "fly-by-night" was coined to describe the operator who remained in business only until his peculations brought him within danger of prosecution, then decamped, perhaps to reappear under a new firm name in another market.

Such operations would be practically impossible in the marketing of staples where samples would be kept, or which could be ordered into warehouse by the owner if he were not willing to take the market price on arrival. The shipper of green produce and fresh fruit had no such alternative. His agent did not wire him the market price before selling. He sold on arrival, and too often he reported to his principal when and as he chose. It is doubtful whether another case could be found in all human history in which a group of agents have had their principals so completely at their mercy and where such large amounts were involved.

There were none of the checks and balances in the first 20 years of refrigerated shipments which have recently been devised, so it is not strange that the growers pictured the city trade as far more unscrupulous than it was. Sus-

picion was fed by ignorance. In utter ignorance of the national distribution of the daily supply, shippers tried one market after another, and the evils of gluts and scarcities developed. The shippers blamed the receivers for all the low prices.

These conditions could never have arisen had the cities continued dependent upon nearby fruits and vegetables. We have noted that the commission man was the valued friend and adviser of the local wholesale producer whose need brought him into being and that such relationships still exist. Today they are being reestablished between the commission man and the most remote shipper, for the industry is rapidly developing a basis for confidence; the shipper, as we shall see later, being no longer wholly at the mercy of his agent.

THE RISKS OF PURCHASE

The abuses were not all at the city end. The distant shipper was often a plunger. He too was after "easy money." He had no reputation to maintain in the far-away market. He was often guilty of false packing. He frequently made little effort to exclude the stuff which should not have been shipped. If he had an opportunity to sell outright, his products were always represented as of the best. The city merchant who was unwilling to share the opprobrium which attached so generally to the commission business and who was willing to buy f.o.b. shipping point, found that he must reserve the privilege of rejection on arrival if the goods did not prove upon inspection to be of the kind and quality specified.

Thus, "f.o.b., usual terms" came to mean that the buyer took the goods after loading on cars at shipping point at an agreed price, but payment was deferred until the goods reached destination and had been inspected by the buyer. Around this method of sale other abuses have developed which are now in process of abatement.

READJUSTMENT AND CONFUSION

For the last 20 years we have heard so much loose talk about the waste and iniquity in the produce trade that many have assumed that it is a veritable inferno of unrighteousness. This has never been true. Any industry, tremendously expanded and revolutionized by sudden discoveries, will develop its new and acute problems. There will always be a period of maladjustment of economic forces, a period of exploitation and abuse, then a gradual settling down to a defensible basis of operation. The factory system of manufacture developed its evils which are not yet fully cured. The sudden and complete penetration of the prairies and plains by railroads brought its abuses of power newly lodged in untried hands. The sudden exploitation of these lands brought many hardships upon the settlers and upon their fellow farmers in the East.

State and national regulation or assistance has often followed these economic upsets, but in the general field of marketing perishables effective regulation has not yet been devised and may now prove to be unnecessary. It is only within 10 years that either state or nation has rendered any material aid in bringing about a basically healthy condition.

This discussion of abuses and newly developed difficulties is far from complete. It is introduced at this point because the worst abuses which the industry has ever endured were the direct result of conditions brought about by the sudden general availability of ice.

THE SHORT PROFITABLE SEASON

Another gradual effect of country-wide shipment has been the reduction of the number of varieties which it is profitable for the local truck or fruit grower to raise. His earliest variety may come into competition with something far superior from another state, while his latest sort may meet the same fate. It often happens that only one or two

varieties of a fruit or vegetable can now find a ready and profitable local market, when formerly it was good business to grow many others.

Distance has practically ceased to be a limiting factor in marketing perishables in the United States and Canada except as it affects freight rates. There are few products on either coast which cannot be shipped to the other. With the high degree of specialization in crop production which this situation has brought about, a competition has developed between producing areas such as was undreamed of 50 years ago.

Refrigeration is largely, although not wholly, responsible. When California and Florida celery compete in the New York market it is because both can be shipped under ice and neither would be on the New York market without it. The winter crops of kale and spinach from the Norfolk section of Virginia can reach many large cities with little or no ice, but west of the Allegheny mountains they meet the spinach crop from south Texas shipped under ice. Which shall predominate in many markets is a question to be settled by conditions in the two districts in any single season.

When strawberries are ready to move from Louisiana, Florida shippers know that their season must close. Louisiana in turn must usually stop shipping when Tennessee and Arkansas begin in earnest. The first pickings are almost always finer than the last, and with the shorter haul in their favor the new areas crowd out the old often before the harvest is completed. Tennessee and Arkansas are in turn crowded out, or forced to a lower price level, by Missouri, Kentucky, and southern Illinois.

Thus the question in many districts is not altogether how many berries can be produced per acre, but how many can be picked and marketed within the limited period which competition now leaves available for that particular shipping district. It would be folly for the growers of Louisiana or Tennessee to plant late varieties of strawberries

hoping to lengthen their season, for each is relentlessly pushed off the market by a later district just about so many days after its own season begins. Buyers and itinerant pickers move north with the season and often leave considerable quantities of fruit behind.

The situation is but slightly modified as to peaches, or even as to watermelons and potatoes, which are seldom refrigerated. The improved train service provided for all perishables in recent years now brings potato areas into competition across distances which were deemed impossible less than a generation ago.

For example, all potato areas south of Norfolk strive to clean up their crops before shipments start from the Eastern Shore of Virginia. It is generally conceded that any earlier area will market its remaining product at a great disadvantage after the movement from the Eastern Shore begins.

This influence is felt far west of the Mississippi River. A large grower in the Fort Smith, Arkansas, district explained to the writer years ago how he timed his marketing to dodge the height of the Virginia movement. He had provided storage for a large part of his crop and if he could not get on the market ahead of Eastern Shore he stored until their peak was past, then aimed to get ahead of the peak of the movement from New Jersey.

Most growers in that section, however, ship as rapidly as possible in an effort to get off the market before the Kaw Valley in Kansas comes in, while Kaw Valley sometimes rushes its crop off within as short a period as three weeks, in an effort to get out of the way of Nebraska.

This often leaves a local grower with an exceedingly short period within which he has any decided advantage even in his own market. The grower in the immediate vicinity of Washington, D. C., for instance, is on higher land and not quite so early in ordinary seasons as is the Eastern Shore. If his crop is unusually advanced he may be able to sacrifice a little on volume by digging early and getting ahead of the coast counties. Otherwise, he will

be almost sure to gain by delaying his digging until the crest of the movement from the Eastern Shore has passed, when there is usually a sharp rise in local wholesale prices for a few days before the heaviest shipments from New Jersey arrive. The grower who does not sell between the peaks of the North Carolina, Virginia, and New Jersey movements is usually doomed to find his potato crop an unprofitable venture.

The local grower can usually afford to ignore the price from day to day and watch the movement, knowing that if he can put his crop on the market between two of the inevitable peaks, which will be only about two weeks apart, he will get better prices than if he waits to hear of higher prices before he begins to dig. These examples could be multiplied through a long list of products.

As already noted, the widening of the area of competition and the increased number of days between the field and the table have greatly reduced the number of varieties which most growers or most communities find it profitable to produce. The short season within which any area has an advantage over others in the general markets of the country frequently makes it necessary to concentrate production upon the particular variety which can be depended upon to produce the largest marketable output within that short period. Thus the strawberry districts of Tennessee, Arkansas, and Missouri ship chiefly only two varieties, the Klondike and Aroma. The St. Ansgar district of Iowa grows red onions almost exclusively. Although the red varieties are preferred in only a limited number of markets, this district, where a special type of red onion does especially well, can almost monopolize those southern markets during the period necessary to move its crop.

This competition has another effect. The choice must be limited to a variety which will most surely make a fairly good yield. This is especially noticeable in early potatoes. In most northern markets a white-skinned tuber is preferred, yet the whole Southwest plants the Bliss Triumph,

a red-skinned sort, for its early crop, because it is deemed most dependable under the usual climatic conditions. The same potato is not welcome in the same markets when supplies of white varieties are available later in the season.

IV

HAZARDS OF THE NEW INDUSTRY

Separation of principal and agent. Separation of competitive shippers. Lack of crop information. Lack of market news. Misleading information. Solicitation of consignments. A Florida example. The danger of gluts. Ignorance of total movement. Demand unmeasured. Dangers in small markets. Inter-city shipments. Unmeasured dependent areas. Hazards of large scale production. Peculiar hazards of new regions. Cost and hazards of pest control. Labor hazards. The "Fruit Tramp." Hazards of the harvest. A Colorado example. "Sowing lettuce from the saddle." Again, labor and frost hazard. Doubling the hazard to make money. Risks from lack of standards. Good grading not rewarded. Repacking in cities Shipment of low grades. Hazard of plant diseases. Popular ignorance. Recent progress. Hazards of temperature. In transit. In the market. Weather and demand. Hazards of container supply. Container efficiency. Container suitability. Texas hampers. Short measures.

We have noted briefly some of the results which followed the long-distance shipment of fruits and vegetables. The grower, far from his market, faced a situation which had never confronted the growers near the markets. He carried all the risks of the truck farmer of the earlier day, with several others added.

At first there were few if any itinerant buyers, and the local shipper had not yet appeared. Shipments were chiefly on consignment, and returns must be awaited. The greater the distance from market, the more serious was this element in the situation. Great distance meant complete separation from the grower's agent, with whom he formed only the most slender acquaintance. The distant shipper usually was not an experienced truck grower and needed much detailed instruction which no one could give him effectively at long range. He had no opportunity to compare his methods or products with those of his competitors unless he could afford extensive travel, and usually he could not. It is a little difficult to visualize the handicap which mere distance from market and from established pro-

ducing areas constituted in the earlier days of the expanded industry. It is easy to see, however, that every risk of marketing was increased.

DISTANT COMPETITION

Districts separated by great distances became competitors in the same markets. Neither had any reliable information as to what the other was doing. There was no coordination of effort in production. There could be none in marketing. The shipper never knew what competition his goods would find in the market. If a difference of a day or two in the time of shipment would mean dodging the peak of the movement from another district, he had no means of knowing it. Worst of all, if he was running into a hopelessly glutted market he did not know it until too late and often had several days' loadings on the road which could not be recalled and on which losses were bound to be suffered.

In the early years of long-distance shipment there were no official estimates on the acreage or production of most truck crops. Expansion in one district was not known except in the vaguest way to other districts until the heavier shipments actually appeared. Indeed, conditions in adjoining counties were not well known, for the automobile had not come and the week-end journey was limited to the radius covered by a horse and buggy. The telephone even was a luxury and did not cover the growing territory until years later. Conditions have changed so radically within 30 years that it is difficult to picture a big new industry proceeding in such an atmosphere of guesswork.

LACK OF MARKET NEWS

Most of the information about the market which found its way back to the grower came on his account-sales or in brief letters from his commission merchant. It is the gen-

eral testimony of those whose memories cover the period that reports were always rosy up to the time of heavy shipment. Indeed, the first returns on each crop were usually satisfactory, but the rapidity of the following declines was apt to be phenomenal. The worst of it was that all the information on market prospects and conditions, on quality and quantity of arrivals, on top and bottom prices or average sales, which reached the shipping district at all, came from private sources which were far from disinterested.

These were the conditions which made it possible for unscrupulous operators in almost any city to send their agents into new territory and solicit consignments with considerable success. The grower who knew nothing of the markets and who had shipped to only one, was easily led to make at least a trial shipment to a new market, or even to a new firm in his usual market, by a smooth solicitor.

A well-authenticated incident which occurred as late as December, 1906, illustrates a condition which was almost universal in producing districts. On a branch of the Seaboard Air Line railroad running from Orlando to Wildwood in Florida, a mixed freight and passenger train operated daily or less frequently. While cars were being switched and local freight handled at each station in turn, the passengers had ample time to see the town. If any perishables were moving at the time, the shippers were likely to be around town at train time. On this particular day the train carried an official of the United States Department of Agriculture and a passenger who was soliciting consignments for a commission house in Philadelphia. This solicitor had perhaps as many as three telegrams of recent date from his house giving the prices which they were getting for oranges.

The official saw this solicitor, on the strength of these telegrams, secure in one day the consignment of eighteen cars of oranges to that one Philadelphia firm.

Fortunately the story ends at this point. We do not know how the shippers fared, but it is a safe guess that the

total consumption of oranges in Philadelphia at that time was but a fraction of 18 cars per day. The telegrams may have told the truth or may have been sent with intent to deceive. The point is that they constituted the only market information on oranges which anybody on that railroad had that day. The packing houses had no market contacts other than a list of commission houses to which to consign.

If we grant the best intent on the part of everyone it is evident that the long-range marketing of perishables under such conditions involved fearful risks.

The lack of any except the most local knowledge of the volume of shipments was universal. The information simply did not exist. If it had existed, no one could have used it intelligently in advance of a well-developed system of market reporting, which is a product of the last 10 years. It is evident that during the 20 years next preceding, the production of perishables in newly exploited areas had outrun the evolution of the agencies essential to efficient distribution. The practical result was a business of supreme hazards.

DEMAND UNMEASURED

Until within the last 10 years we have had very little information as to what total quantities of the various perishables the country would consume within any given period. For many years the belief was held that the demand was practically unlimited. The grower generally attributed his troubles to failure to ship to the right market or to the dishonesty of his agents. He was inclined to discount reports of gluts and statements concerning the bad condition in which his shipments arrived.

Shrewd dealers soon learned that about so many cars per day on this or that particular market meant disaster. Even the most intelligent could penetrate but little further in the study of demand or in estimating what the consuming power of the markets would be under intelligent distribution of the national supply.

Recently we have accumulated much knowledge of these matters, but it is a new study made possible by services which were undreamed of for 20 years after this industry had attained continent-wide proportions.

This ignorance of actual and potential demand resulted in a persistent concentration of consignments in the larger markets. If a commission man opened business in a city of less than 100,000 people, his market was glutted if his solicitors or his advertising brought in more than a car a day of some products, or more than a very few cars per day of any product. If a glut occurred in such a town, the supply was worked off slowly and prices remained bad much longer than in a larger center.

So during the many years when most long-distance shipments were consigned for sale on commission, shippers learned to avoid the small markets. Average prices might be as high there as in the larger cities, but they were too easily overstocked. Utter ignorance of what 100,000 people could be expected to consume, together with ignorance of what supplies the markets must absorb from other districts, left the distant shipper no alternative but to stick to the big centers.

Cities of considerable size thus became dependent on reshipments of perishables from larger markets except during their season of home-grown supplies. This aggravated the shipper's difficulties, for he had no measure of the relative amounts of out-of-town trade built up by the dealers in different centers. The vast amount of reshipping from central markets, with resultant waste and deterioration, was the greatest obstacle to an intelligent study of demand and of per capita consumption when such studies were finally undertaken. The trade areas of various cities were found to be quite independent of the population of the distributing center. Even now (1927) the study of per capita consumption, on the basis of cars unloaded in several of the larger markets, gives such surprising results that no one cares to assume responsibility for their publication. They prove

that we have not yet a sufficiently definite knowledge as to just what populations are supplied from each center.

We now know how many carloads per year of each of the more important fruits and vegetables have been unloaded and sold in or from each of the larger cities for several successive seasons. The industry, however, had passed through the period of universal consignment and was tending rapidly toward f.o.b. trading before anything of the sort was undertaken. During those years the hazards of the business were aggravated tremendously by the lack of any knowledge of the consuming capacity of any city or section or of the nation as a whole.

HAZARDS OF LARGE-SCALE PRODUCTION

The long-distance shipper has been from the first a grower of larger acreages of each crop planted than was the market gardener of the preceding era. The expansion of the industry has been on new lands, not old gardens. Virgin fertility and commercial fertilizers have been relied upon instead of barnyard manure. The new areas have therefore been relatively free from weeds during the first several years of their exploitation. Less hand labor per acre has been required than in the older regions. There has been every inducement to ship solid carloads of one product. This means extensive rather than intensive culture.

Extensive culture of one crop, or even of two or three, is a vastly more hazardous business than the growing of a full seasonal succession of the largest possible assortment of crops in a market garden. A week of unfavorable weather might spoil one planting of a few products in an eastern market garden. A corresponding week in a new district, with plantings on a carload scale, meant devastating disaster. A single frost, hail, flood, or drought has always brought more staggering losses to the long-distance shipper than to the local truck and fruit grower.

Pest control was a new problem in the new regions. Some well-known insect enemies were left behind when certain crops were grown in new regions. There is still one small apple district in Nevada which the codling moth has not yet found and in which it is claimed that a wormy apple has never been seen. Some of the eastern enemies of the cantaloupe have not followed the crop into the irrigated deserts of the West.

But sometimes new enemies greeted the new crops, and when the old enemies arrived they were found to present a new problem. Extensive production requires extensive and costly preparation for war against insects and diseases. These preparations are seldom made in any new region until disaster has proved their necessity.

Harvest labor has often been as serious a problem for the truck grower or orchardist in a region of new and intense production as it ever was for the prairie grain farmer. Many new areas have soon expanded their industries until outside labor was necessary for the harvest season. Most truck and fruit crops must be gathered in limited time and at just the right stage of growth. A failure at this point means failure for the season. The force which has been sufficient to plant and cultivate the crop, or to spray and care for the orchard, is usually utterly inadequate to gather and prepare the crop for market.

The development of a series of such regions which could be served in turn has led to the evolution of the "fruit tramp," a type of labor which is indigenous and unique. From Florida to the Great Lakes and from Mexico to Canada these itinerants swing back and forth as pickers and packers of oranges, grapefruit, strawberries, tomatoes, peaches, apples, and other crops, by turns.

Often highly efficient but also restless and anxious to move on, these itinerants have become a necessity and yet a source of anxiety. They may not arrive in sufficient numbers, or if the weather is unfavorable and the harvest interrupted, they may move on to later areas before the

crop is saved. No one will ever measure the losses which have resulted from inability to gather perishable crops for distant shipments. It is a loss almost never sustained by the grower for the home market. It is peculiar to regions of specialization and large-scale production at long distances from consuming centers.

The further back we go into the history of such production, the more acute these situations appear to have been. The problem of the harvest appears not to have been appreciated until after losses had been suffered. The question as to whether the crop could be put on the cars after it was grown involved one of the serious uncertainties of the business which has not yet been entirely removed.

As recently as 1922 a new head lettuce area was developing in the uplands of Colorado and a certain rancher decided to try the new crop. He was a stockman of the type of which the shippers say that, "they sow their lettuce seed from the saddle." This man broke 10 acres of pasture and planted it to lettuce. He and his family and one ranch hand had brought it to maturity. A shipper at the station 10 miles away had contracted to handle it for certain charges. He furnished crates and the labor at the railroad siding to trim, pack, ice the crates, and load cars. He told the grower that he needed a gang of Mexicans and a camping outfit in the corner of that field to cut that crop, but the grower had always run that ranch with his regular force and had no notion of changing his whole plan of procedure. He could not realize that with 10 acres of lettuce he had changed his cattle ranch into a factory.

With his one hired man, as ignorant of lettuce as himself, he began his harvest. They hauled truckloads to the station as fast as they could load them. Presumably he soon got a little local help if he could find any.

With the lettuce at a high price, frost caught most of his crop uncut though well headed. He brought samples of the frost-bitten stock to the shipper who showed him how it must be trimmed, explained the cost of preparation and

packing, and showed him about what his net return would be. It meant that with lettuce in the field worth perhaps $5,000 if it had been harvested on time, and still worth probably $2,000 if promptly handled, he and his man could earn only about $20 a day while taking turns on the truck. The shipper would do all the trimming.

So the grower said he would plow the rest under and next year he would plant 20 acres and make some money! He was already spoiled for working in lettuce for $10 a day by the high prices of his first cuttings.

Although possibly an extreme case, this illustrates the seriousness of the problem of harvest in a new region and the peculiar risk involved in the sudden expansion of the industry by extensive methods and by inexperienced growers.

RISKS FROM LACK OF STANDARDS

When home-grown products were the only supply of the city markets and buyer and seller met face to face, there was less need for any sort of standardization. The varying qualities from different orchards or gardens were offered for what they were, and prices might vary as the quality of the offerings justified. Such competition as there was between growers took the form of rivalry as to the average quality of the crop. There was no rivalry as to who would leave the most culls at home for the sake of offering a better grade on the market.

Many long-distance shippers were slow to learn that they could not market their goods successfully on this plan. Growers new to the business had little idea as to what was and was not of good marketable quality. They could not see the character of the goods from other districts. It was easy to believe that the best they had was the best that anybody had.

In each separate district the idea of a number one grade or of a good commercial delivery was based upon the average quality produced locally. If grading was attempted

by one grower, his product was usually lost in the mass and finally sold at about the prevailing price for the product of his locality. The commission merchant could not always find a premium market for a small lot of premium goods which he did not know were coming.

The utter confusion which ruled the minds of distant shippers for many years as to proper standards of quality, added tremendously to the difficulties of marketing. Errors of judgment and failure to appreciate the point of view of the city handler of the goods caused innumerable losses.

So bad was this situation that for many years the repacking and grading of shipped-in perishables by dealers in the markets was a regular industry. Labor for the purpose cost more in the city than it would have cost at the farm but the farmers' goods sold for prices low enough to make the use of this labor for regrading and repacking a profitable enterprise.

It occasionally happened that when the idea of grading finally captured a district, the rules adopted were extreme. State laws have been passed designed to prevent the shipment of goods below certain standards.

As the idea of standardization has spread, some of the remedies for the cure of former conditions have been drastic. The general pressure of an oversupply of many fruits and vegetables has now been felt for several seasons. The lesson has been fairly well learned in the regions of heavier production that it is better to let the poorer grades rot at home than to pay freight on them only to have them sold at last for less than carrying charges.

Some sort of organization or outside pressure is almost a necessity in the education of the grower on this point. During the first half of the period over which long-distance shipments of fruits and vegetables have been made, such organization was lacking. There were no state laws touching the industry and no extension forces to educate the producer. There was not even a national clearing house of any

sort for the information which would have shown him what others were doing and how he must compete.

Confusion and misconception on the whole subject of quality standards prevailed so widely that they may fairly be classed as having involved one of the major risks of the business.

THE HAZARD OF PLANT DISEASES

When the nearby truck grower has a product ready for market, he sells it the next day. That day it is in the hands of the dealer, possibly the consumer. If it is a highly perishable fruit or vegetable, the consumer will have it within three days at most.

In the early days of truck gardening in this country, relatively little was known about plant diseases or their control. The only diseases which caused concern were those which injured growing crops or products in farm cellars. In fact the latter were not recognized as diseases until within relatively recent years. No distinction was made between decay resulting from physiological breakdown and decays resulting from what are now recognized as numerous separate and distinct fungi and bacteria.

When plant pathology began to be a little understood, investigators gave their attention to diseases occurring in the field or orchard. Bordeaux mixture for controlling grape mildew and black rot was discovered and first commercially used in France within the memory of living men. In America there was little if any attempt at disease control, especially in truck crops, until after long-distance shipments had begun.

When perishables began moving on long journeys, spending several days or even weeks in freight cars, either with or without refrigeration, enormous losses were sustained from causes which seemed wholly mysterious. Curious things also happened in cold storage. Deterioration of various kinds occurred sometimes at one temperature and sometimes at another.

In short, a new and tremendous hazard beset the long-distance shipper to which his predecessor, and competitor, near the market was a stranger. His field disease problem was far more serious on his large acreages, often cropped continuously in one product, and when his goods left his station he and the carrier assumed another new, serious, and unmeasured risk.

Extensive studies of field diseases had been going on for nearly 20 years before any systematic work was done on the diseases which are especially important in transit and storage, some of which are of little or no importance in the field. During all the intervening period the distant shipper was carrying this new risk and was especially helpless in any attempt to offset it.

WEATHER HAZARDS

In addition to the risks of drought, frost, flood, hail, and wind, which his market-gardener competitor shared in some degree, the distant shipper had an added danger from the effects of unfavorable weather in transit or after arrival at the market. A sudden and severe freeze might ruin his crop in the car after he had saved it from the field. His claim against the carrier was a poor consolation, and many losses were suffered because of the ignorance of the claimant.

Hot, damp weather promoted decay at a rapid rate on products not usually requiring refrigeration. Excessive heat sometimes rendered refrigeration ineffectual in the relatively poor equipment which was then in use.

Finally came the hazards of weather at the market unfavorable to consumption of the particular product. Certain fruits, like watermelons and lemons, are known as hot weather fruits, cantaloupes and peaches are similarly classed, although not such extreme illustrations. The consumption of any of these is abruptly curtailed by cool, rainy weather at the market end. Melons, cantaloupes, and peaches are ripened and shipped north and east to markets

whose summer is less advanced. Early shipments, especially, run the risk of cool weather in the markets, with consequent stagnation of trade.

This particular danger is not so serious for the man who produces for a home market, for when his crop is ready, hot weather may be more confidently expected. If a few days of cool weather occur, he can defer his picking, for the ripening of his crop will be checked. When the weather changes, he can pick and deliver the next day. He does not escape the problem, but it is of minor importance. With his distant competitor it is often a major cause of disastrous returns.

The evolution of modern information services, standardization services, and even weather services, has not yet evolved any very effective assistance for the long-distance shipper in the matter of dodging bad weather at the receiving market.

PACKAGE RISKS

The package business is now as nationwide as the producing industry, but necessarily it has followed. It could not lead the way. The package industry has been called into existence by the growth of long-range marketing for perishables.

At first there was no more coordination between manufacturers of packages than between shipping districts. All were feeling their way. All were after profits. If package makers made mistakes and put out crates or boxes which would not stand the long journey to market with the jar incident to making up trains, switching, and spotting cars, the growers were the victims of the error.

There was no accumulated knowledge as to the safety or efficiency of containers of different sizes or shapes until it was developed out of a wealth of unhappy experiences.

Aside from all the uncertainties as to the suitability and safety of the package itself, there was the frequent inability to secure them in needed numbers when the crop proved

unexpectedly large. A package shortage may be just as disastrous as a hail or a frost. As the business of truck shipping spread from district to district and was taken up by thousands of men to whom the crops were new, there were many who were wholly unable to anticipate their package needs with any approach to accuracy. To order too few might mean inability to move a large part of the crop. To buy too many meant an idle investment in unused packages for a year. It meant also the use of storage space, which the grower seldom had to spare, or a heavy deterioration if the packages were not housed.

There was the further uncertainty as to the most suitable container for the market. In the days when there was no attempt at package standardization this was a serious matter. If one district had introduced a commodity in one package it was sometimes difficult to market a competing product which came in a few years later from a new district because it was in a different and unknown container. The first lettuce shipped from the Lower Rio Grande Valley was hard to sell in markets which had become accustomed to the lettuce from Florida because the Texas product came in a lower hamper of larger diameter while the Florida hamper was tall and slender. The wholesale trade feared that the hamper of radically different appearance would prejudice the retail trade against the goods.

The total lack of standardization of packages resulted in a very large number and variety of short measures. These were designed to look like bushels or half bushels or other regular sizes, but were in fact of smaller capacity. The tradition of many shipping districts records the time, in the not yet dim recesses of the past, when the package salesman usually had a new package nearly every year which was just enough smaller than the one used the year before so that it should sell for the same price but should also pay for itself by its saving to the shipper in the smaller quantity of goods required to fill it.

In the days when there was little or no organization

among growers, no inspection service at either shipping point or market and no laws requiring that packages be marked with net contents or net weight, there were always growers willing to try a new short-measure container. If a district had used a full bushel package for years, it was the more inviting field for the salesman who could offer a 30-quart package of similar appearance.

The almost infinite variety of sizes, styles, weights, and designs in which containers were finally offered and the varying efficiency of the packages themselves, afforded ample opportunity for mistakes on the part of growers and shippers. Rapid progress is now being made toward the standardization of all fruit and vegetable containers, and legislation both state and national has helped to bring order out of chaos, but as the industry of long-distance marketing of perishables was expanding into new regions in its earlier days the package situation added measurably to the hazards of this most spectacular of all agricultural developments.

V

HOW THE HANDLER BECAME BANKER

Fluctuating production. Permanently increased demand. Crop values per acre. Financing early agriculture. The truck crop a new problem. Must be its own security. Not a banker's risk. Limits of bank loans. New credit essential. Dealer's advances. Less risk assumed. Double profit possible. Volume assured. Advantages to grower. Advances beget confidence. Losses beget distrust. Production on joint account. Mutual advantages. Buying on joint account. Its origin. Its operation. Distribution of risk. By products. By districts. The chance for large profits. Splits with other dealers. Financing through futures. Advantages to grower. Added risks of dealer. Temptation to plunge. Extent of dealer's advances. Specific examples. Significance of the source of credit.

From the study of risks in the last chapter the conclusion is easily drawn that the grower could not carry them all unaided without frequent insolvencies. A business necessitating such risk-bearing by the producers was bound to be an irregular business. The volume of shipments from any distant locality was sure to fluctuate violently and within wide limits. Following adverse years, growers were likely to make radical changes. In fact, this went on to such an extent that a fairly definite rule of alternating high and low prices for potatoes and a few other staple vegetables became the normal expectation.

But meantime the trade in these perishables had become a large industry. Consumption expanded rapidly under the stimulus of abundant supplies through a longer season. Few commission men or carload buyers had as yet developed nation-wide contacts. Most of them at first specialized in certain districts and gradually expanded. Whether prices were high or low the trade wanted its regular supply of goods. The grower of annually planted crops had no enthusiasm over steady supplies if they did not result in a steady margin of profit over expenditure.

FINANCING PRODUCTION

In nearly, perhaps all, new truck crop areas the vegetables replaced crops of far less value per acre and which were grown with only a small fraction of the investment necessary to grow a truck crop and put it on the car. An acre of land which might in the early 90's have grown a bale of cotton worth $50, might easily produce bunched vegetables or strawberries worth several hundred dollars per acre but which represented a tremendously increased investment of time and materials. Financing truck crops involved concentrated risks in limited areas.

Ever since the railroads penetrated the West the farmers on new lands have been borrowers. Originally the pioneer with ox team and wagon, dog and gun, expected to finance himself. He lived chiefly on the country, supported no elaborately organized society, expected no luxuries, and traded goods for goods or sold such products of the frontier as would bear the cost of transportation and with the proceeds bought the manufactured products which he found indispensable. If he ever borrowed money it was on the strength of his personal character and the faith which someone had in his desire and willingness to pay. As settlement advanced slowly inland, the normal machinery of business and government followed.

Generally speaking, land values were from the beginning the basis of agricultural credit. Live stock gave added credit in the West, and in the early days slaves were pledged as security for large loans in the South. Later came the advance on the crop lien. The crop, however, was a staple, and the holder of the lien could have something to say about how and by whom it should be sold and how and through whom the proceeds should be handled and settlements made. Crop loans were based on expected crop values but with the land as abundant additional security. Loans for permanent improvements were always based on real estate values.

The newer regions have been large borrowers from the old ever since the railroads made an outlet for their products and brought the products of the cities within the settler's reach. Many a thrifty eastern farmer invested the savings accumulated on a small, rocky acreage in western farm mortgages secured by lands incomparably better than his own.

But the planting of truck crops on a large scale in any new region created a new situation. The crop could not be produced with the labor previously employed on the farm. More must be hired. Often commercial fertilizer was used and whenever used at all was used at a rate never applied to any staple crop. The cost of harvest was much greater, and added to all this was a large expenditure for packages. True, a good crop, striking a good market, paid all these expenses and much more, but all of the hazards discussed in the preceding chapter intervened.

When truck growing invaded a new region far from markets it was not unusual for a single crop to return far more than the commonly accepted value of the land on which it grew. In fact, such crops are still sometimes grown even in recognized trucking sections. But in the earlier days it was not at all unlikely that a well-handled truck crop would require for the production, harvest, packaging and handling costs, an investment in a single season of more than the value of the land on which it grew.

Evidently then the crop must be its own security.

NOT A BANKER'S RISK

Obviously a perishable vegetable crop must be handled quickly and through men regularly and constantly engaged in that work. The checks and safeguards with which the local money lenders, whether individuals or banks, usually surround themselves, are inapplicable where a highly perishable crop is the security.

The banker is forced practically to disregard the expected

value of the crop and limit his loans to such amounts as will be secured by the underlying land values. The truck crop is liable to be totally destroyed by a frost, by insects, by disease, by hail, or possibly by drought or flood. When all these gauntlets are run, it may strike a disappointing market and sell for less than the packages and freight. The banker, then, must disregard the crop and consider what the grower is worth aside from the crop, or what he will be worth if the crop proves a complete loss. The banker is himself dependent on eastern capital. If he misjudges the soundness of the local ventures which he finances, he is lost. What, then, shall he do when his farmer patrons go heavily into truck?

The sound banker must deny himself any large participation in the new business. He may advance money for packages and otherwise assist in the harvest and movement of the crop after it has run the gauntlet of the hazards in the field, but even then only if the market price insures some return. Prudence may compel the bank to stop just at the point where further aid is essential. The banker must not, if he can avoid it, share the risk with the grower. He is lending other people's money, and he of all men should always put safety first.

It does not help the case for the farmer to promise to let the banker sell the crop. That is the last responsibility the banker cares to assume. He cannot possibly be in touch with the general produce trade. The trade does not know him. He can do little more than consign the goods for sale on commission, and the grower can do that for himself. The banker could realize on cotton or on corn, assured of the daily quoted price, less reasonable costs, from the nearest local dealer. He cannot realize on lettuce or celery in the same way. Possession of the product adds little to the likelihood that the loan will be repaid.

Obviously, then, when the banker's farmer patrons go suddenly and heavily into truck the banker cannot meet their increased need for credit. Either they must finance

their trucking operations from their own accumulated capital or they must find a new source of credit.

DEALER'S ADVANCES

If the wholesale dealer or commission merchant has money at his command, he can finance the truck grower much more safely than can the banker, and that for several reasons. First, he can realize tomorrow the full market value of the product delivered to him today. The perishable goods which the banker cannot handle with any safety are his daily stock in trade. It is his business to be in touch with many markets. When a car of any fresh fruit or vegetable is turned over to him, there is little doubt in his mind as to about how much he will be able to realize from it.

Second, the dealer can, if the grower is solvent and the crop pays its way, make a profit on his loan and another on the sale of the crop.

If the dealer is a successful business man he can secure credit on his general solvency and prosperity. Until the very recent past, the dealer could borrow large sums at lower rates than the growers could secure on smaller loans from local sources, and it is probably still true in many parts of the country. Many dealers could thus make at least a small profit from the difference in interest rates.

The dealer who finances the producer may be depended upon to secure the marketing of the crop as a part of the bargain and will secure his commission or selling charge whether the market price be high or low.

Third, it is important to the dealer to maintain a steady volume of produce for his trade. Advances to growers under contracts which provide that he shall market their crops insure this volume. In the long run more business can be obtained by going to producing regions early in the season with money to advance, than by extensive travel and solicitation when the crops are ready to move.

There are good reasons also why the grower who does not enjoy the benefits of membership in a well-organized association should prefer to obtain his loans under a contract with a dealer.

First, he can be reasonably sure that enough money will be forthcoming at the end to harvest and move the crop. The dealer knows that the only hope of saving his investment is in moving that crop. He has started out to carry a risk which no banker would willingly assume and he will not abandon it as long as there is any possibility of recovering anything more than the cost of packages and marketing at the end.

For psychological reasons, if no other, the dealer will generally see that the grower is supplied with packages at as low a price, or possibly less, than they would otherwise cost him. Neither is there likely to be a package shortage, for the dealer is interested in seeing that crops go to market.

Within the past 25 years many new areas of production have been exploited, especially for truck crops. From some of these one or more products have reached the markets at seasons of the year at which they had previously been either wholly wanting or very scarce. In every such case the dealers have been competitors for the privilege and profit of handling the new supply. The easiest and surest way to stimulate production in the new area was to finance it. The readiness to assume risks which the banks will not take, creates an atmosphere of confidence in the venture which is highly suasive to the grower.

In the early days of artificial ice and the resultant expansion of the industry, every district was new in the sense that it invited exploitation, and every dealer had a demand for more of the goods than he had ever been able to get. As a rule, each dealer operated in his own market exclusively. Consignments were solicited rather than bought outright at point of origin. The risks were, as we have seen, tremendous. Individual markets were soon overloaded with certain products during the shipping season of

certain districts. Nation-wide and systematic distribution from a single producing center was yet to come.

To stimulate the grower to carry all these risks, the dealer at first made it as easy as possible for the grower to get the necessary cash. The loan was repaid out of the net proceeds. This meant that the dealer was paid for selling the crop whether or no. If there was enough left after paying freight and commissions the dealer next secured the amount of his loan. If there was still a residue it belonged to the grower.

Too often the practical result of this procedure was to leave the grower with nothing. Sometimes the dealer was fully paid and sometimes not. The grower felt himself quite helpless. Frequently he had no means of satisfying himself that the accounting had been fair, although in fact this was the rule. If he was in debt to the dealer at the end of the year the latter could put pressure on him to raise and deliver another crop on similar terms.

JOINT-ACCOUNT PRODUCTION

It was inevitable that many growers would go bankrupt under such a system or would break away from the money lenders even if through default. Many dealers could show apparent losses and not a few probably had actual losses in financing production.

The advent of the cash buyer made the way of the commission merchant less rosy. If a grower had been able to borrow up to the point where it became unlikely that the crop would bring him any more money; in other words, if it was all likely to be absorbed in the repayment of the commission merchant's advances the grower was sometimes suspected of selling a part of the product for cash to some third party.

It now became desirable for the dealer and grower to have a little more in common. The grower wanted someone to share the risk of growing and selling the crop. The

merchant wanted some assurance that the products would actually come to him for sale.

Joint-account arrangements were the result.

Joint-account contracts are of infinite variety in their details, but the essential point is that risks and profits are shared in a way definitely agreed upon in advance.

The grower may be allowed a certain rent for his land and certain credits for his labor. The dealer may advance a specific sum per acre, but more frequently he furnishes or pays for certain things essential to production, perhaps seed, fertilizer, packages, and the cash expense of harvesting and packing.

If the crop returns a profit after all credits and expenses have been paid as agreed, it is divided. Usually the division is equal, but it may be in a different stipulated proportion. If the proceeds will not pay the claims of both parties against the crop, they are applied on these claims pro rata, or to the various items in a given order of preference.

This arrangement improves the psychology of the situation. Each party is bound to regard the other more nearly as an equal. The land-owning producer does not jeopardize his real estate for the sake of raising a single perishable crop. He has a partner in the enterprise whose interests are identical with his. He can go into commercial trucking on this basis and feel reasonably sure that he can survive the bad years. He knows that he has a salesman who will give him the best service of which he is capable. Finally, he is in position to expect satisfactory evidence as to the actual prices received for the products.

The reputable dealer also enjoys more peace of mind under this arrangement. He can keep a substantial man in the game instead of financing rovers or plungers. His grower will put the intelligence of accumulated experience into growing the crop and, still more important to the dealer, into grading and packing it for market. Growers of this type are not likely to defraud him by selling part of the crop for cash and failing to report it. They are not

fearful of being victimized at every turn and take suggestions with better grace. He knows that if he can make some money for the grower the grower will continue to make money for him.

JOINT-ACCOUNT BUYING

It is possible that buying on joint account preceded joint accounts with growers and helped to lead up to them.

As it became more and more difficult to secure a sufficient volume of consignments, especially of some commodities, more dealers became buyers of a large part of the products they sold. A little later many ceased to spend much energy in soliciting consignments but sent out buyers both before and during the shipping season. Local buyers also sprang up. These naturally led a precarious existence unless they were fortunate in their city connections. They were as much at the mercy of the distant handler as was the grower who consigned to the market.

The local buyer naturally felt that the receiver in the city who was sure of his commission had all the best of the bargain. He naturally tried his luck with another when the returns were disappointing. So in order to secure a more nearly constant supply from a given district the city distributor made a joint-account contract with the local buyer.

These arrangements also vary in details, but in substance the buyer secures the goods and attends to the shipping, possibly the grading and packing also, and the city merchant sells and makes the collections. Profits and losses are divided equally.

The merchant keeps the buyer posted on current prices or warns him that f.o.b. prices above a certain figure are likely to result in losses. The buyer gives the merchant accurate information as to the quality of goods he can secure and the prices paid f.o.b. by competitors.

These arrangements stabilize the business of the buyer, insure ample financial support, and make him a more useful

outlet than he could otherwise be for those growers who prefer to sell for cash at the railroad siding.

Here again the merchant is frequently taking the place of the banker in financing business in the country far from his own trading place.

Buyers on joint account now travel from place to place operating in a succession of shipping districts. They may have identical contracts with distributing houses in several large markets. They are in reality traveling buyers for these houses but with a share in the profits on their purchases in lieu of salary.

DISTRIBUTION OF RISK

Financing the production or sharing in the risks of f.o.b. purchases of vegetables is a far less dangerous matter for the dealer than for the banker because of the wide range of products, seasons, and localities over which the dealer can spread the risk. Just so surely as truck crops must in the long run bring something more than the cost of production, so surely will the dealer get back his advances and something in addition. His problem is to distribute his risk over enough commodities or districts so that he can weather a calamitous failure of any one crop or in any one section. If his judgment is good in these respects and if his operations are sufficiently diversified or extensive, the dealer who is financing the production of crops which he is to handle is a much better banker's risk than are the truck growers themselves.

The dealer can distribute his risk over the growers of a single commodity located in several different regions who will market their crops at different seasons. No one truck crop is likely to be in excessive supply from every district in turn through a whole season, although this may occasionally occur. The dealer with a few men financed in each district is relatively safe. A bank with an equal number of growers financed for the same crop will have

them all in one community, all liable to suffer from the same crop failure. The dealer can stand the loss incident to a local truck crop failure occasionally. The banker must not risk it. The dealer can take the risk again next year on terms which give him a chance to recover his loss and add a profit. The bank ought not to do so.

THE CHANCE FOR LARGE PROFITS

There is a speculative element in financing production which is attractive to many. The plunger may make or lose a fortune in a year. The careful dealer can avoid many of the plunger's losses and will occasionally pile up large and legitimate profits.

When the financing is through joint account the dealer may lose a part of the cost of production. He can seldom lose more. In the years when large profits are made he gets half of the profits. The profits may far exceed the total cost of production. If the dealer has joint accounts with 20 growers, he gets, in addition to his regular commissions, a profit equal to the total profits on 10 crops. When we remember that growers have repeatedly cleared from the sale of a truck crop more than the recognized value of their lands, the single year's profits of a dealer who has financed a group of such growers begin to loom large.

If the market is good, the dealer is never overloaded no matter how large the crop. His selling charge is a part of the cost which is paid before profits are divided. If his own selling facilities are overtaxed, he can easily turn over part of the tonnage to commission merchants in his own or other towns with whom he can split commissions or selling charges. The cost to his joint-account grower or buyer is not increased, but the outlet can be multiplied many times over. As long as the prices obtained result in any profit on the crop, the dealer gets his share of that profit and he gets one-half of his selling charge without having actually to handle the goods.

This distribution of tonnage to other dealers for sale on commission is less risky for the dealer than it would be for the distant grower. The dealer is selling the same products every day. He is trying to sell carloads by telegram and by telephone to dealers in other cities. He knows exactly what it is reasonable to expect the other salesmen to obtain, each in his own market. Those with whom he has divided tonnage know that he knows every turn of the market. If he has a large supply, his account is well worth handling even on a split commission. It is tonnage which comes to them without any expense of solicitation. It is bound to be handled literally to the best advantage of its owners.

FINANCING THROUGH ADVANCE PURCHASES

There are many transactions which are in reality purchases or sales for future delivery, but through which production is financed in whole or in part. Here again we might go into a wealth of analysis and study many variations in the details of practice, but the principle can be briefly stated.

The dealer agrees to take the crop at a fixed price per unit of given grade, or at a scale of prices for the different grades, and to make certain payments in advance, or at different periods of its growth or maturity, or for specific expenses.

Here the dealer evidently assumes a very definite risk. The grower naturally will make such an arrangement only at a price which will insure him a margin above expenses if he gets an average yield. The dealer assumes the risk of a low price at harvest.

The appeal to the grower lies in the degree of certainty as to what he will get for his crop. He has before him a definite price within which he must keep his cost of production. If he does this he is sure of a profit—barring such accidents as are necessarily incident to fruit or truck farm-

ing. He is also sure of the cash needed to do what needs to be done at the right time and in the right way. In other words, he is comfortably financed without pledging his real estate as security. There are growers who contract their crops year after year in this way. They never make the largest profits but they avoid all the worst market losses. If they are reasonably sure of their average cost of production and can sell in advance at a safe margin above it, they are certain to prosper in the long run.

But if the grower is comparatively safe, the dealer who finances production through advance purchases assumes correspondingly larger risks. He has left himself no loophole for escape except through bankruptcy. His advances will constitute a substantial part of the price. When harvest comes he may see that he cannot get the price he has agreed to pay, but he has paid so much of it already that he cannot afford to refuse to accept delivery. Except in tragic cases he can realize more for the crop than the balance due the grower and so can recover at least a part of what he has advanced.

If a dealer can buy consistently close to the cost of production he will make large profits in the years of high prices. It is this possibility which stimulates the gambling instinct. The plunger is forever tempted to go out and tie up a lot of tonnage or acreage of a crop in the future price of which he has confidence.

It is on such contracts that fortunes may be made or lost quickly. With a large tonnage under contract at a low price a dealer may pile up enormous profits in a season. With a little more tonnage contracted the next year at a little higher price he may be ruined. He loses not only the difference between his contract and the market price but also the interest on the money he has advanced and must, if he can, carry over a large part of the obligations he has incurred in obtaining those advances.

As a buyer for future delivery, the dealer is operating entirely outside the sphere of the banker, but he is still tak-

ing the banker's place to the grower, for he is furnishing the money to finance production, harvesting, and preparation for market.

ADVANCES ENORMOUS

There are no known records from which we can learn even the approximate amount of money advanced annually through trade channels to finance fruit and vegetable production. That the total is enormous is easily deduced from what is known of certain crops in a few specific areas.

The manager of the largest growers' organization in an early potato section which ships its crop over a very wide area estimated that 40% of the money needed to produce the 1926 crop came from distant sources and through the hands of dealers to the growers.

The bulk of the money needed to produce the enormous cantaloupe crop of the Imperial Valley of California has always been supplied through the shippers and handlers of the crop. This is reputed to have amounted to several million dollars a year.

The Colorado Mountain Lettuce industry has, with possibly a few local exceptions, been stimulated, fostered, and literally brought into existence by the dealers or selling agencies which have been willing to finance production and marketing.

In the trucking sections of Mississippi the dealers are financing the tomato and other truck crops very much as they formerly financed cotton, and the advances per acre of crop are, of course, very much larger.

In every truck growing region of large importance which must ship any considerable distance to market the same thing is going on and usually on a large scale. It is present though probably less important in most fruit growing regions. The reasons for this difference will be treated in the next chapter.

No one can understand the history, present status, and probable future of fruit and vegetable merchandising in

America who fails to get this picture of an industry financed largely through the handlers of the products rather than directly through banks. The reasons underlying this situation must be kept in mind when proposals for changes or improvements in the industry are under consideration.

VI

ECONOMIC DIFFERENCES BETWEEN THE FRUIT AND VEGETABLE INDUSTRIES

The contrasts. The orchard. No immediate return. A long-time investment. Added land value. What the crop must pay. Financing the orchard. The grower's undertaking. The banker's view. The orchard's early years. Credit for a fruit crop. Organization for fruit marketing. Continuity of problems. Why orchardists cooperate. Contrasts with the vegetable industries. Tenantry. Organization difficult. Unattractive home sites. Population types. Conditions peculiar to truck growing. Instability. High cost of failures. Last-minute losses. Quick exploitation. Pioneer truck growing. Pecos Valley. "A bag of seed and a bunch of contracts." Instability of new areas. Orchard and grove exploitation. G. Harold Powell's statement. Overpromotion. Fruit industry slowly adjustable. Overproduction disastrous. Grower's common interests. Community control. Police legislation. National legislation.

One who studies the history and present development of the regions of intensive production of tree fruits and of vegetables is impressed with certain essential differences. These differences extend through many features of the business, including its financing from start to finish, the type or character of the growers, type, extent, and stability of local organization, and prevailing methods of marketing. We usually treat fruit and vegetable marketing as though they were one industry. In this chapter we shall try to point out some of the differences. Perhaps we can show why the methods successfully followed in a fruit region have not been equally successful when attempted in a vegetable-growing section. We may also get some light on the reasons for the greater economic and political influence of the groups specializing in growing and marketing tree fruits than of those specializing in vegetables.

The large handlers of fruits in the city terminals are usually large handlers of vegetables also, but large producers of either are seldom commercial producers of the other.

THE ORCHARD INVESTMENT

The orchard or grove is a long-time investment. The trees are planted with the certainty that there will be no immediate return. The peach or plum orchard may begin to pay its current expenses in the third year, the apple orchard in from five to eight years, depending upon varieties and location. Some varieties of pears and cherries are about as slow in reaching the age of profitable bearing as are any of the apples. All these, and the citrous fruits as well, require from two to five more years to reach full production after they begin to pay expenses. The nut trees are generally even slower in coming to maturity.

The productive life of the orchard or grove is also relatively long. New regions of great promise have sometimes found their trees short-lived due to soil conditions not evident in the beginning, but nothing else which the farmer plants in the hope of cash returns begins to compare with the orchard or grove or bog in its permanence as an investment and in the number of years over which cash returns may be expected.

Fruit and nut trees are really semipermanent improvements. They add tremendously to the value of the land on which they are planted. This higher value increases more rapidly as the trees approach full bearing. If the industry is prospering and the planting has been judiciously made, the increase in land value should offset the investment in the care of the trees through their unproductive years.

But if the owner does not want to sell his land he must depend upon the successful marketing of his crops to repay all that the trees have cost him in direct and indirect expenditure during their early growth and to cover his losses in seasons of crop failure. He must also earn interest on a high land valuation and must make enough beyond all this to secure him against loss when the years of decline set in and finally when the trees must be replaced or the land devoted again to other uses.

FINANCING THE ORCHARD

Evidently the man who plants trees must have some visible resources. Unless he is an irresponsible plunger or a speculator planting for a quick sale, he must own his land or a substantial equity in it. He should have a home on or near this land and must be prepared to stay on the job for several years.

His land is usually abundant security for his initial expense for nursery stock, and if for any reason the trees are lost in their first few years the original value of the land has not been reduced because of them. The banker can see an increasing land value while the trees are growing and is justified in taking this into account in determining how far to go in making loans.

Meantime the orchard at first interferes but little with other normal uses of the land. For the first few seasons it will produce inter-tilled crops which may much more than cover the entire cost of caring for the trees. In fact they may need but little care beyond what they get as an incident to the tillage and fertilization of the annual crops grown between them.

The expense of bringing the orchard or grove into bearing is spread over several years, and the owner can usually earn much of it as he goes. Only in exceptional cases or districts is his entire acreage planted with trees. His heaviest expenses do not come until the crops also come. They are to an extent dependent on the fact that there is a crop. The greatest expenditures are almost always in connection with the heaviest crops.

The result of these conditions is that the orchardist is likely to be financed, at least up to the time when heavy crops require extra heavy outlays, by his own or by local capital. It was noted in the last chapter that much which was said about the financing of production by middlemen was more applicable to vegetables than to fruits. We are now developing the reasons. The orchard is a better

banker's security than the same amount of land under the average truck crop. This is true even when the vegetables may be expected to bring as much as the fruits. In case of a last-minute loss of the crop there is more value left in the orchard than in the truck patch. There is usually a better marketing system developed. The fruit growers are also a more permanent and established group.

The fruit grower is therefore financed more like a manufacturer or like a dairyman than the average large-scale, long-distance truck growers can expect to be. The orchardist has certain rather fixed annual expenses after his trees come into bearing. Usually he must prune, cultivate, and spray almost the same in a short-crop as in a full-crop year. In years of crop failure he may, however, omit some spraying and reduce cultivation, fertilization, and perhaps other orchard expenses. If he has no crop, he buys no packages and incurs no harvesting expense. These are two large, cash items in full-crop years. Credit is usually forthcoming if needed for the expense of putting a fruit crop on the market after it is grown. The dealer often supplies it, but if fruit growers are organized for marketing purposes the necessary credit is likely to be secured locally through an arrangement by which the returns from the fruit are pledged up to the needed amount.

MARKETING ORGANIZATIONS

During the years while the orchard or grove is growing, the owner has abundant time to consider his marketing problem and to prepare to meet it. In a new region he is associated all those years with other men who are looking forward to the same situation. If he is in an established surplus fruit district he sees and studies the methods and results of the independent grower and his neighbor who belongs to a marketing association.

If his mind has remained open and his plans unformed, his first small crop brings the necessity for a decision or at

least an experiment. He has two or three light crops ahead before he may expect a heavy one. He gains experience which at first is not so dearly bought if it proves that his ideas on marketing are wrong. His first crop is small and its inefficient handling is no ruinous matter. When this situation is faced by a group of substantial property owners, cooperative effort is the natural and usually the successful result.

The community of interest is so self-evident and the growers have so many years in which to study the situation that well considered plans of organization and of operation can be developed. These plans can be tested and modified from year to year, for the crops of fruit continue to be of the same varieties, to ripen at the same seasons, to require the same equipment, and to involve the same problems of harvest, grading, packing, and selling.

The stability of the fruit industry, the length of life of an orchard, the impossibility of annual changes of varieties, the necessity of handling exactly the same product for many years in succession, the certainty that many others will face exactly the same situations and will feel exactly the same needs, the economy of large-scale purchases of various supplies and the certainty that any surplus supplies will be needed next year because nobody will change his crop, the advantages of grading and packing fruit through houses of large capacity where the benefit of competent management can be shared by all without excessive expense to any, all these and many other similar considerations contribute to the mental attitude which makes the large-scale fruit grower who is far from his market a good cooperator. The two items of containers and spray materials, supplemented in most districts by fertilizers, offer in themselves a substantial economic urge toward cooperative purchasing.

The permanent investment of a fruit grower's marketing association is relatively large. A modern packing house, equipped with machinery for handling several carloads of fruit per day, costs many thousands of dollars, frequently

far more than the entire group of buildings on any farm or ranch which contributes to it. If storage space is provided, as for apples, pears, or citrous fruit, the investment in buildings still further exceeds what any grower could individually afford. The ownership of an interest in such a plant is an asset to the ranch which is not to be lightly considered. The value of their mutual property tends to hold the membership together.

Another influence contributing to the stability of the fruit grower's organizations is the need of a system of pooling sales. Evidently the individual who sells his own crop cannot pool. Each shipment takes its own chance in its own market. The result, broadly speaking, is that the individual shipper cannot develop new carload markets. He cannot afford to take the risks involved and must ship to the larger centers. The organization, by making an equal distribution of the returns on all cars or sales of like variety and grade within a certain period, can distribute the risk and develop new carload outlets which may prove highly profitable. In any event they add to the total of available outlets and so help in the general problem of selling the

POINTS OF CONTRAST

Thus far in this chapter we have discussed fruit industries almost exclusively. The differences between the conditions discussed and those which obtain in the vegetable industry have been inferred rather than pointed out step by step. Certain points of contrast should perhaps be emphasized before going further.

First, very few truck crops represent more than an annual investment. It is true there are exceptions. Asparagus and rhubarb plantings last for years. The preparation of certain lands for certain special truck crops also involves a heavy outlay. One of the best examples is the celery district at Sanford, Florida, where hundreds of dollars per acre are spent in laying tile for sub-irrigation in special

preparation for this one crop to which the land is subsequently devoted as constantly as to an orchard.

There are also regions, like northern Maine, which because of climate and soil specialize consistently in one truck crop, in this case potatoes, or like the muck areas of north-central Ohio and Indiana which grow onions almost as invariably as an orchard grows apples.

These are but the exceptions which prove the rule. Generally speaking, commercial truck crop production does not involve a long-time investment like an orchard and neither is the grower bound to produce this year the same crops he grew last year.

The commercial trucking area, especially one which is still in the process of development and exploitation, lacks in every way the stability of the orcharding district. We have discussed the problem of financing vegetable production and shown how the handler of the products has been drawn into this business. Because the investment is so largely an annual one, tenants can be used in trucking, whereas few orchard or grove owners will willingly turn over to a tenant the care and management either of growing trees or of a plantation in bearing. As long as truck growing is to any great extent in the hands of tenants there will be instability of population in the trucking area.

If any considerable portion of the population changes from year to year, effective organization is impossible. The permanent resident whose stake in the community is comparable to that of the orchardist will not tie himself up in an organization composed largely of men who may leave the district at the end of the year or who in any event will shift to other crops after every adverse season.

On the other hand, the tenant cannot safely put money into the permanent investment of a marketing organization as the owner of an orchard or grove does, and even a group of land-owning truck farmers hesitate to trust each other's constancy to the extent of building jointly owned packing houses and storages as fruit growers do. In short, the man

who goes heavily into truck has not cast the die nor crossed the Rubicon as has the man who has planted trees each of which will produce one kind of fruit and one only for many years.

The average truck-growing district does not specialize, or up to this time most of them have not done so, so consistently on certain products that the best methods of handling and sale can be applied from year to year. The experience of one year may be of but limited value the next because of a general shifting of attention to some other product, or a general disposition to abandon or curtail a crop which has been in too large supply.

All this leads inevitably to the conclusion that organization of the growers of truck crops is far more difficult than the organization of fruit growers and that, with a few exceptions, the individual truck grower is likely to continue to deal directly with the dealer or commission man to a far greater extent than will the orchardist. To a far greater extent than will fruit and nut growers, truck growers will be financed and consequently controlled by outside capital or agencies.

Even in one-crop trucking areas, like the muck beds which are devoted to onions, there is a large amount of tenant cropping. In fact, tenants predominate in some such sections. There is a marked tendency for such lands to drift into the hands of owners who make their homes elsewhere. Dealers often acquire land in such districts and rely on tenants as operators.

One reason for this situation is that a drained muckbed is seldom an attractive place of permanent residence. Many other trucking regions are flat and low. They do not afford inviting home sites.

Most orchard districts, on the other hand, are either fairly well elevated, or at least rolling, and invite the creative genius of the home builder. The exceptions are in level desert regions and in low-lying citrous lands. Even in Florida a large proportion of the orange groves are on

rolling land, while the truck crops are almost wholly on the lowest soils, some of them subject to flooding.

In short, fruit growing is generally accompanied by home ownership and by owner-occupancy of the most permanent type, while the truck-growing area far from its market seldom shares these characteristics in like degree and may be noticeable for their absence. In this basic difference in land tenure and use and the resultant differences in the character of the populations specializing in fruit and in truck raising, we find the roots of the differences in the marketing processes which obtain from start to finish.

CONDITIONS PECULIAR TO TRUCK GROWING

The commercial truck crop may be a "flyer" or purely speculative experiment. It may be planted by a man or by a community having little or no experience with it. The initial acreage may be as large as the enthusiasm of ignorance may dictate. Anybody who has control of a tract of land for a season can participate in the gamble.

If the district is relatively new in truck production, or if a certain crop is new to the section, a few initial successes tend to stimulate plunging by many growers. If disaster results, it is as easy to go out of truck as to go in.

Extremes of production are therefore natural in a country where immense areas of undeveloped land or of general farming land are available for commercial truck crop production on a season's notice. A community may rise to sudden prominence in the production of one or more truck crops and then go almost bankrupt in a year of crop failure or of overloaded markets. The steadying hand, as we have seen, must be the hand which controls the purse strings of credit.

THE HIGH COST OF FAILURES

In many respects the failure of a truck crop is likely to be more disastrous than is the failure of a fruit crop. Most

of the costs of producing a truck crop are nearly the same whether the yield be large or small. There is the same cost of land preparation, of seed or plants, of fertilizer, of cultivation, and of hand labor. To omit any of them is to abandon the crop and lose all that has been invested in it.

The cost of harvesting is often practically the same whether the crop be light or heavy. If the crop requires spraying, the cost per acre is the same regardless of prospective yield. Frequently packages must be bought in advance, and if they are not needed they constitute a dead investment which will be useful next season only in case the same crops are grown.

In most of these respects the fruit grower has a marked advantage and can do far more toward reducing his expenses in an off-crop year.

The fertilizer invested in a truck crop must usually all be applied before the yield can be forecast. The fertilizer bill is usually one of the heavy items of expense in truck production. Almost invariably the obligation at least must be incurred before the crop is planted. If growth is slow or season adverse, the tendency is to apply more fertilizer and cultivate more intensively. A final failure of the crop or slump in the market thus leaves the grower with an unreturned bill of expenses which may be truly staggering.

The truck crop failure is also likely to occur when the product is nearly ready to harvest. A hot wave causes lettuce to send up seed stalks just when it should form solid heads. A dry spell spoils the radish crop in a few days. Excessive rains rot the early potato crop in the ground just as it is ready to dig, or make it impossible to pick peas during the three days within which they should have been shipped, and thereafter they are too old. In many other cases the loss occurs just before the harvest is due and after all the expenses of producing a full crop have been incurred.

The orchardist usually has several months' notice if his crop is to be a failure. If the set of fruit is light, that fact is evident as soon as the bloom falls. If frost kills the crop,

the cultivation and fertilization usually can be curtailed and part of the spraying omitted. A hailstorm is almost the only calamity which is at all likely to overtake most fruit crops after they begin to approach maturity, and this hazard is fully as serious for many vegetables.

We conclude that a crop failure when it comes is relatively more costly in loss of current cash outlay to the vegetable grower than to the orchardist. The one argument on the other side is that a second truck crop may sometimes be grown on the same land in the same season to salvage some of the fertilizer and to secure some income from the land. Replanting a lost truck crop is, however, practicable in but few districts, for in these days of continuous supply the later districts will almost always spoil the market for a truck crop replanted on a large scale in any community after a failure. The exceptions are certain limited areas in Florida, Texas, and California.

POSSIBILITY OF QUICK EXPLOITATION

The era of fast and furious exploitation of new trucking areas may be already ended. However, the business in winter vegetables for eastern markets is still relatively new in parts of California and Texas, and the quantities grown for our markets on newly developed lands on the west coast of Mexico are increasing rapidly. Instead of being confined to the densely settled regions around the large cities, the commercial truck crop has become a pioneer. Lands are going directly from desert into vegetable gardens. The transition may come in the very first year that water is available. This possibility of quick action has often been demonstrated within the last 25 years. The Pecos Valley in New Mexico suddenly surprised the country with shipments of hundreds of carloads of cantaloupes annually. The quality was good, the season considerably later than in Southern California, the competition was more widespread, the industry almost wholly in the hands of dealers. Then

a season or two of disaster, and the region was almost erased from the cantaloupe map of the country.

Experiences of this sort, both successful and disastrous, have given a flavor of romance and excitement to the long-range trucking industry. The "get-rick-quick" grower and the dealer who "operates on a shoestring" are alike attracted. Neither flourishes for long in an orchard or grove area.

A specific illustration shows the conditions which existed up to 10 years ago and which probably have not yet wholly passed although the ability of every owner of a radio set to get current market information daily has no doubt brought a profound change.

In 1915 the United States Civil Service Commission held an examination to secure eligibles for work in fruit and vegetable marketing in the then new United States Bureau of Markets. Among those who passed the examination was a man whose papers showed that he had operated as a distributor of cantaloupes and other truck crops for growers in various regions in Colorado. Upon inquiry as to the extent and character of his operations, a responsible man who knew the state and knew the applicant said to the writer: "Well, B— is the sort of distributor who starts out in the spring with a bag of seed and a pocketful of contracts and comes back in the fall with 25 to 50 cars of cantaloupes to sell for somebody."

That simple statement paints a picture of typical American pioneering. We are all familiar with the men who pioneered as traders and hunters and with the more forceful and picturesque prospectors who explored the Rockies and Sierra Nevadas with pack-mule and pick in the ceaseless quest for precious metals. Many who came as miners remained as settlers. They ranged cattle or sheep and brought small areas of land under cultivation and often under irrigation.

Then, like the traveling preacher seeking new and undeveloped fields, or as the prospector had gone tapping every

hillside with a prospect hole, there came another pioneer, a prospector as truly as any who had preceded him—the man with the bag of seed and the contract. He tested every mesa and valley and plain and mountain park. With a patch here and a field there and some real acreage over in the next valley he tested out the adaptability of the Mountain and Intermountain states from Canada to Mexico.

Occasionally a new vein of "pay dirt" is still struck by the mining engineer, and science may yet locate greater mineral wealth in the Rockies than has ever been found, but it now appears that the rich and easy veins have been pretty well appropriated and exploited. Likewise we shall find that certain regions have undiscovered adaptabilities to certain products or to certain varieties, but it seems that the quick and easy exploitation of a new trucking area is almost as unlikely as the picking up of another rich surface seam of gold or silver ore.

We have not yet emerged, however, from the influence of those days of early exploitation. We do not yet know how permanent some of our newer trucking areas are to be. The season of 1926 witnessed a severe curtailment of cantaloupe yield in the Imperial Valley due to mildew, a disease never before troublesome in that locality. Control measures proved unsuccessful. Under different weather conditions in 1927 the disease did not recur. If many succeeding crops are as seriously affected as that of 1926 the preeminence of the Valley in the early cantaloupe market will soon become a tradition. Thus may pass the most spectacular single truck crop in the country, for there is none which compares with this particular movement in the rapidity and completeness with which it reaches and fills every market in the country during its season.

ORCHARD AND GROVE EXPLOITATION

There have been many instances in both the East and West of the organized exploitation of fruit lands. Develop-

ment companies, unit orchard companies, and the speculative individual tree planter have each taken a hand.

The basic fact in all such schemes is that those who prepare the land and plant the trees do not expect to harvest a crop. They are after buyers for the planted acreage. They look for profit in the sale of the real estate, not in the sale of fruit.

No doubt many orchard areas have developed faster because of such enterprises than they would have without them. They have helped to swell the sum total of our fruit production. They have, perhaps, made fruit growers of some who would never have been able to plant and grow an orchard, but they have injected a disturbing element into the situation and have complicated the marketing problem.

The late G. Harold Powell, manager of the California Fruit Growers' Exchange, stated the case briefly and well when he said to the writer: "Our trouble is that our growers do not control our acreage. The real estate operator controls that for us. Every year that we make a little money for the growers the real estate men plant more land with orange trees and advertise our returns as what the buyers of their new acreage may expect. When the new groves come into bearing we have to take their owners into membership, for even if there are too many oranges it is better to have them in the association than outside."

The vicious circle here described has existed in regions other than Southern California. The land-owning growers have developed methods and machinery by which they are able to make a living, perhaps a little more. Left to themselves they might expand their plantings gradually as their prospective outlet seemed to justify. But the moment their best yields and prices told a story which would induce a novice to buy a new planting, the "developer" was on hand to plant trees and sell orchards. His plantings were based on what acreage he thought he could sell, not on how much fruit could be added to the output of the region without disaster to both old and new growers. This was the least

of his worries. Whether he has operated in apples or citrous fruits and whether on the Pacific Coast, the Gulf Coast, or in the Appalachians his influence has been the same. He has helped to overdo the business in every promising new area. By providing an artificial and unnatural competition, he has robbed permanent landowners of the profits they should have enjoyed. He has broken down markets and eventually hurt the reputations of the districts where he has operated. He has induced investors to risk and lose the small savings of a lifetime, for he has sold too much orchard acreage on the strength of the success of a smaller orchard.

This situation has been possible only because of the large amounts of new land thus far to be had in every fruit-growing section outside a few of the older districts. As we seem now to have reached the saturation point on practically all tree fruits, we may never again see such exploitation as just described. It has, however, played an important part in the evolution of the industry. We have tried to show the essential difference between the exploitation of fruit and vegetable areas. The plunging truck planter in a new area hopes to make a tenstrike on a big crop and a high market. The plunger in a new orchard area is hoping to sell out his acreage at a high price in anticipation of what it is hoped that it will yield. It is often the second or third owners of orchards who handle the first full crops.

FRUIT INDUSTRY SLOWLY ADJUSTABLE

Intelligent fruit growers must take a long look ahead. The planting of today should be done with a view to supplying a market several years in the future. The price of fruit does not respond to an increase or decrease of acreage as does the price of wheat or cotton. The fruit itself must actually appear on the market before the prices of peaches, plums, and berries are affected. The price of apples for fall delivery is influenced by the set of fruit on the trees in any particular spring or summer, but not at all by any in-

crease or decrease in acreage which may have occurred within a year.

If the market has absorbed an apple crop with difficulty and at relatively low prices and new acreage is coming into bearing annually, it is known that, with an equal load per tree, the next crop will be heavier and the pressure on the market will be greater. Under such conditions the younger bearing trees are increasing their yield each year. New acreage in bearing this year means an increasing yield every crop year for at least the next five years.

However evident the marketing difficulties of the next few years may be, the orchardist has no way of decreasing his crop or reducing his operations or expenses. He must comfort himself with the certainty that few new plantings will be made while the oversupply is in evidence and that with unprofitable prices some old orchards will be neglected. Some orchards will also be pulled out if they show no profit for three or four years, and under extreme conditions some young plantings may be neglected and never come to maturity. So in the course of years an equilibrium is reestablished, but the adjustment is painfully slow. An unprofitable orchard may bankrupt several successive owners.

Getting into fruit growing is a slow process and getting out is even slower if the land is not sold outright or the orchard or grove sacrificed. This is the reason that the orchardist suffers more than does the truck grower in the event of overproduction. Truck growers will or can correct the situation within a year, but the owners of trees cannot. They cannot adjust except by extreme sacrifice and must grimly attempt to hold on until enough others are forced out of the business to make it again profitable for the survivors. When it is evident that too many trees have been brought into bearing, there is not only the loss of profit on the crops of fruit but there is a shrinkage of real estate values and consequent curtailment of credit. The whole problem of existence and continuance in business is at once acute.

COMMUNITY OF INTEREST

We have noted that the fruit grower finds it easy to cooperate with others having similar interests. The long period during which the community of interest lasts has many results which are evident in the relationships which grow up and the processes which are developed. Intelligent fruit men are students of their industry. Students form organizations for discussion as well as for business. The Horticultural Society for discussion of common problems preceded the marketing organization.

Those who cooperate in the business of buying supplies and selling fruit develop what may be called collective marketing sense. They know that equally satisfactory results cannot be expected every year, and they learn to stay with the organization through success and disappointment. This is especially true of organizations which have been able to secure sufficient credit to meet their members' needs.

COMMUNITY CONTROL

The orchardist is more vitally concerned with his neighbors' affairs than is the truck grower. In the fruit-growing community it is truer than in almost any other sort of agriculture that "no man liveth to himself." Pests from a neglected orchard promptly infest the trees of the most careful and up-to-date grower. Proper care for one's own interests compels attention to and concern over the methods and especially the omissions of one's neighbors. Local organization cannot fully cope with the case, since there is always the problem of the nonresident owner.

Naturally there has grown up a great deal of police legislation. Growers have gone to great lengths in what they have required by law of themselves and of each other. The writer feels that regulatory legislation has been somewhat overdone, but apparently it has not yet run its full course. The laws of several states provide for the official destruction

of orchards whose owners have allowed infestation by certain pests or diseases to reach a certain stage.

If codling moth has not been controlled, the law of the State of Washington provides that all the green fruit shall be officially picked and destroyed and the charge added to the tax bill against the property. So far does the fruit-growing community go in saying what the individual must do if he is to continue in the business.

In the new fruit districts the men who were planting orchards for sale and who looked for profits in land rather than from packed fruit have been conspicuously willing to prescribe by law what the grower should do and what he might and might not send to market. There is some ground for hope that as the stage of high-pressure development passes and the industry is more largely in the hands of men who want to sell fruit, the tendency will be to get along with less legal requirement and prohibition. Just now the fruit industry has on the whole probably more legal regulation at point of origin than has any other type of American agriculture.

Legal control in several states extends to the matter of grading for market. Everywhere the marketing association is putting pressure on the growers to bring about better standardization, and he would be a poor student of the fruit industry who failed to discover how earnestly it has struggled with this problem and how far it has led the vegetable industry in this field. This subject is more fully treated in a later chapter.

NATIONAL LEGISLATION

The early organization of fruit growers and the prompt appeal to state legislatures for local regulatory laws has led up to the appeal to Congress for further protection and relief. Every industry which is founded on a fruit tree and which finds any direct competition in any part of our country with any foreign product is believed to be sheltered by

a protective tariff tax. The organization of fruit growers is so general that each special group is able to speak with a united voice on this question and to make itself felt by its representatives in Congress. The tariffs seem to be designed to maintain present land values. Consumers are asked, and their representatives agree, to maintain profits on the cost of converting deserts into fruit or nut plantings. They were converted for the profit of the land speculator, yet the consumer denies himself access to the products of other lands, grown under natural conditions or with vastly less expenditure, and agrees to pay a higher price that the investments of the developer and of the grower who succeeded him may be profitable.

There are, however, no restrictions on the importation of bananas, which are broadly competitive with many domestic fruits.

VII

THE INFLUENCE OF COOPERATIVE ORGANIZATION

General interest in the movement. The cooperative a middleman. The manager and the free lance. Better buying power. Qualifications of manager. The market representative. Organization as a protest. Cooperative commission houses. Disillusionment. Lessons learned. Savings on purchases. One-commodity groups. Three examples. Reasons for success. Influence on grading. The cooperative and the local dealer. The dealer's side. The cooperative a stabilizer. In marketing. In mental attitudes. Through common property. Pooling. Its far reaching influence. Necessitates standardization. Cooperatives the leaders. Some lagging. The Georgia Peach Grower's Exchange. Cooperatives and the auctions. The cooperative and its brand. Efficiency of volume. Permanence. Cooperation in vegetable marketing. Potatoes, Colorado and Virginia. Monopoly impossible. The small cooperative. Usefulness and limitations. Legislation. Expecting the impossible. The Capper-Volstead Act. Explanation and text.

No study of the evolution of present-day marketing can ignore the cooperative movement. It is easy at the same time to claim too much for it. Not all cooperative efforts have been successful. The cost of marketing has not always been reduced simply because the growers combined for marketing purposes.

No phase of marketing has been given more attention in recent years than cooperation among producers. Almost every recent work on marketing gives the subject large space. There is a tendency to regard organization among growers as the first step and an essential step toward efficient handling of the marketing problem.

The writer does not go so far. Instead of emphasizing all the possible or theoretical advantages of a farmers' cooperative, we shall try very briefly to appraise what the movement has done and is likely to do for the fruit and vegetable industries. We must also indicate some of its limitations.

THE COOPERATIVE A MIDDLEMAN

Too often we overlook the fact that when growers organize and sell their products through their own association they have created a new agency or middleman. A new group has been called into existence which must be supported by the industry. The manager and his office force must be paid. Whence can this money come but from the growers?

If the growers before organization have been selling to local buyers, and these buyers are displaced by the salesman of the association who establishes direct contacts with distant markets, the organization has simply taken the place of a middleman without reducing the total number in the chain. Whether this substitution is profitable to the growers will depend upon whether the manager can do business for less than did the buyers whom he has displaced. Many managers have failed to do this. The cash buyer then continued to thrive as a competitor. By offering special inducements to the best growers he has been able to pay better prices than the members of the association received and so has been able to hold his share of the most desirable products. He can avoid handling his share of the poorer products, which the association cannot often do. With this advantage in the average quality of his offerings he can hold his share of the best city trade and often show a higher average return to all his growers than can the association.

If the growers have been individual shippers to commission merchants and the organization resorts to the same outlets, it is an added link in the marketing chain and must be justified by some other argument than that of reduced cost. It is possible that its larger tonnage may give it a better bargaining power that is worth all it costs, but this has not always been true. Many a grower has broken away from his association because it was unable to sell outright and was forced to consign. The grower thinks he can consign just as effectively by himself and save his share of the

association expense. He may be right. If his organization has not displaced a middleman it has itself become an additional one and must justify its existence by some new or better service.

The most efficient cooperatives in the fruit industry are middlemen on a large scale. They buy in large quantities and save their members the profits of one handler on numerous supplies. They borrow money in large quantities on advantageous terms for the benefit of members. They also control their product through to the point where the carload is broken for sale or sold as a whole. In almost all cases the cooperative uses the distributing agencies already established in the city markets. They are therefore middlemen operating at shipping points, and on the value of the services rendered in that capacity they must be judged.

The cooperative has called into being at least two groups of middlemen which are chiefly dependent on organized growers for their patronage and who seem to have made places for themselves in modern marketing. These are the association manager and the market representative. Evidently the displacement of middlemen has not been found the most effective field of service.

The manager must be a master of the whole problem of the producing group. He must know the possibilities of production and its limitations. He must know the psychology of the grower and must be able to keep the peace in times of stress. He must know the organization and practices of the trade and must be a student of current market information. He must also master the statistics of his product and as much of its marketing history as has been recorded. He must be a sound financier, capable of inspiring and holding the confidence of those on whom his organization depends for operating funds.

The demand for managerial ability is just now in excess of the supply, and various institutions are offering courses designed to help men to prepare for work of this kind.

The market representative of today fills a very different

place from that first assigned to him. Originally he was more or less of a spy and watchman to protect the growers against the robbery which they believed was going on. Groups sent men of their own number to a few markets which they patronized to watch what transpired and to send them honest reports on prices and supply. The commercial education of these men was rapid and they helped to convince their neighbors that the difficulties of efficient marketing were real and not imaginary.

The modern market representative takes more responsible charge of the business of his group in the city where he operates. He is usually a permanent fixture in the town, especially in the auction markets. His good will is worth much to those who actually sell the products of his association. He is a shaper of sales policies or at least a consultant when these policies are under consideration. Frequently he is known to the trade as a broker, but if so he handles nothing which competes with the goods of the associations which he represents. It is extremely doubtful whether the number of brokers now operating as such could make a living were it not for the income derived from the cooperatives whose goods they place. With the accounts of two or three good cooperatives whose products do not compete and which supplement each other as to seasons of shipment a broker need do relatively little other business. His service for the organized growers renders him so largely independent of other patronage that he may fairly be called a product of the cooperative movement.

COOPERATION AS A PROTEST

It has often been said that the farmer is an individualist and that where cooperation exists it is born of necessity. It is historically true that most of the agitation for grower-controlled marketing has centered around the idea that injustices were being suffered. It has been thought that buyers were making too large profits, or that they combined

to hold down prices, or that they conspired to refuse to purchase so as to force consignments.

Organization has been urged as a means of securing an f.o.b. market, on the theory that consignment meant submission to inevitable robbery and that if the organization refused to consign buyers would appear seeking the goods.

Organizations were often promoted in the earlier days on the theory that the dealers were making such large profits that an organization could make money for its members simply by appropriating and dividing these unholy gains.

In the earliest days of grower cooperation for marketing, the producers actually opened their own commission houses in the city markets. A Farmers' Union commission house was operating for a short time in Washington, D. C., about 1890. The character of the products shipped to it for sale betrayed the point of view of the patrons. Ungraded and cull stuff which no one could sell for more than freight and handling costs was shipped to the Farmers' Company. The growers evidently flattered themselves that the city was hungry for anything which could possibly be utilized and that the Farmers' Company would deal honestly with them and send them satisfactory returns. The manager realized with disgust that this store was the dumping ground for stuff which nobody could sell. It seems almost incredible, in the light of present marketing experience, that scarcely a generation ago a group of farmers in the foot hills of the Virginia mountains should have expected to make money by sending one of their number to operate a commission house for them in Washington. Stranger yet that they should have expected him to handle at a profit a class of products for which the established salesmen had been able to return them nothing.

The whole sorry proceeding bears the stamp of a protest movement. The growers, out of close touch with the market, when standardization had no meaning in agriculture, bred in the old tradition that the city was always

hungry for fresh fruits and vegetables, believed all unsatisfactory returns were the reflection of the dishonesty of the commission man. If they could replace the scoundrel with an honest man, all would be well. Such was the animus of some of the earliest attempts at cooperation in this field.

DISILLUSIONMENT

It was almost inevitable that any machinery set up in this spirit of protest would prove ineffective. Too often the newly organized group, feeling a certain strength born of union, proceeded on the theory that they would now show the dealers or commission man how the thing should be done. The idea that a new and intricate business was to be learned and that keen and experienced competition must be met at every step was not grasped. Too often the early cooperative organization not only had everything to learn but a great deal to unlearn.

The wide margins which the dealers were supposed to have made narrowed down in the actual experience of the association to the point where many members ceased to be interested in the project or denounced the management as incompetent or dishonest.

One of the early moves was to send men to distant markets to watch sales, to send honest reports on prevailing prices and as to the condition of the products on arrival. The reports of these men were disconcerting. Members found that markets were not always cleaned up and with buyers eager for more. They learned that their goods were often hardly recognizable as those which they shipped. They found dealers hiring gangs to grade and repack goods before resale. They found that the competition of other districts was real, not imaginary. They found that products might be edible without being profitably marketable and that market conditions and demands justified the local buyer who insisted on having a great deal of inferior fruit culled out before he would buy the crop.

Here and there a talented man, serving for a fraction of what his services were worth, piloted an organization along with moderate and fairly uniform success. In many more cases low wages secured only indifferent or incompetent management, and the net gains from the cooperative effort were negligible. Often actual failure and bankruptcy resulted.

Failures which resulted from lack of moral support and from lack of financial stability were perhaps almost equally frequent. A basic cause of failure, at first not recognized, was the tendency to spread the activities of the association over too many products, requiring totally different market contacts. The discovery that the successful cooperative must usually confine itself to a single commodity was not made until many failures had demonstrated the fact.

Finally it was learned that individual freedom of action must be almost wholly surrendered. The association must insist on as close grading as did any local buyer and must try to surpass him. The grower must even surrender the right to grade his own stuff or if he did grade it he must submit to inspection and approval of the result by someone else.

Disillusionment may be considered complete when organized growers are driven to do cheerfully all the things which they rebelled against doing at the demand of the buyer before they were organized, and when they are satisfied to stabilize their industry instead of aspiring to quick riches snatched away from piratical dealers.

WHY CERTAIN EARLY EFFORTS SUCCEEDED

It is easy to demonstrate that collective action is usually stronger than individual action. Large orders can also be filled at lower unit prices than can small orders. The buying organization which does not attempt to carry stock on hand or to extend credit could almost invariably show a saving for its members. Those cooperative marketing as-

sociations which adopted this plan of purchase had at least one substantial saving to show each season. It is probable that the savings on purchases have tided over many organizations which would not have survived had their sales record been their only evidence of service to their members.

In its purchases the one-commodity association has definite advantages as well as in making its sales. All its members want the same things and at about the same time and in quantities which can be forecast with some degree of safety. In the handling and sale of the product its advantages are obvious. So it happens that some of the oldest and most successful cooperatives are practically one-commodity organizations, made such in the beginning by necessity or accident rather than by design.

Three very different groups may be cited without too much detail. The California Fruit Growers' Exchange, oranges and lemons; the Eastern Shore of Virginia Produce Exchange, chiefly early potatoes; the Yakima Horticultural Union, chiefly apples.

Each of these agencies from the beginning has stood for quality behind a brand. In organization each differs from the others. The first has expanded steadily toward the control of a larger percentage of the total product of its commodities. The second has made a steady drive for tonnage, but never without some competition. The third has limited its membership, has maintained higher grade specifications than its competitors, and has a waiting list of orchardists who would like to get in.

None are monopolies, yet certain elements of monoply obtain in the first and second and have contributed to their success. It is difficult to discover any such element in the Yakima Horticultural Union, which does not even seek to dominate the industry in its own valley. It demonstrates the ability of a group of the best growers to combine to pack and market under higher standards than can be attained by the average grower and to secure a steady and relatively safe outlet for their product.

So much has been written about the California Fruit Growers' Exchange that we shall omit any description of its internal organization. The mistake has been made of holding it up as an example of what other fruit growers may do if they will. Its late general manager, G. Harold Powell, stated that he doubted if any other group could duplicate what they had done, and that for several reasons:

First, they have more nearly an all-year product than other fruit growers.

Second, their best storage is on the tree.

Third, they have a larger percentage of the total national supply in a smaller area than is true of any other important fruit except possibly the cranberry.

This exchange was a pioneer in the attempt to adhere to uniform standards of quality, as were the others mentioned. It is perhaps fair to say that this has been their greatest contribution to the advancement of general marketing practice.

Recent rapid improvement in general standardization practice has now brought other districts and products fully abreast with the California citrous industry, but the early reputation for uniform quality established by the exchange is still a valuable asset.

Official grading and certification at point of origin now enables other potato shippers to guarantee as good quality as is guaranteed by the Red Star brand of the Eastern Shore of Virginia Produce Exchange, but that brand is still associated in the minds of the trade with reliable quality.

The Yakima Horticultural Union, as stated, has limited its membership to men who were willing to pack to the highest standards for the sake of commanding the highest prices and attracting the best class of customers.

Other examples could be cited, many of more recent origin, to prove that initial and continued success has hinged upon a standardized product, conservative management and the ability to secure needed capital—the latter resulting largely from the two former.

THE COOPERATIVE *vs.* THE DEALER

Since we are concerned chiefly with the processes and influences which have brought this industry to its present state of development, it is fair to ask what the cooperative has done which has not also been done, or would not have been done by the competitive dealer. In just what respects is the marketing of fruits and vegetables on a better basis than it would have been without the influence of grower cooperation? If we can suggest reasonable answers to this question this chapter will have accomplished its purpose.

When the organization movement begins to take definite form in any community, the dealers already established in the territory are prone to maintain that the association is not needed, that it can serve no useful ends, that it cannot afford to or will not hire competent salesmanship, that it cannot do business as cheaply as they are doing it nor return to the growers any more money per barrel or box than the prices they can and do pay. These dealers often have considerable investments in warehouses, packing sheds, or other equipment incident to their business and resent the idea of being compelled to sell out to the cooperative or face the competition of a crusading group movement.

The dealer is often right in saying that his packing house is as well equipped and as well managed as any the new organization can build and operate and that he can and will pack for growers at as low a price as can their new management. He also has his established market connections and is sure he can sell to as good advantage as can any new agency. He has credit which enables him to buy outright or he will ship for the grower's account or sell for a brokerage, as desired. In short, the dealer is sure he can render every service the new organization is to render and do it cheaper than can any new man brought in to manage the new business.

Experience has shown that in some cases the dealer was so far right that he is still doing business at his old stand

while the cooperative has come and gone. In other cases he is a thriving and useful competitor. He now grants the stabilizing influence of the cooperative and would be sorry to see the industry again wholly disorganized. He has found his place, or has held it in the new order of things, and is fairly content.

On the other hand, the association no longer regards him as a parasite. The management realizes that with a complete monoply of the local tonnage many internal problems would be rendered more acute. No comparisons could be drawn, and the impossible would be confidently demanded. Thus far the cooperatives have not eliminated any group or class of dealers. Probably few of their leaders now believe any such elimination desirable.

THE COOPERATIVE AS A STABILIZER

The successful cooperative renders one service to the industry which no buyer or outside commercial agency can render quite so well. The organization has a permanent stake in the industry itself and not merely in the harvested product. The wise dealer who has made permanent investments in marketing facilities is also solicitous for the welfare of the orchards or truck lands of the vicinity, but not to the same extent. In seasons of complete failure he can operate as a buyer elsewhere. The cooperative cannot move. Under adverse market conditions the buyer may cease to buy. The organization must continue in business.

The larger cooperatives which are now exerting the most striking influence on the industry are notable for the scope of their services. In their supply departments, production departments, financial and sales departments they touch almost every phase of the industry and concern themselves with almost every interest of their growers. Their boards of directors consider every move and decision in terms of its permanent effect on their industry rather than in those of immediate expediency.

Successful marketing will not insure the life of the organization without successful production behind it. Growers without capital or credit to operate efficiently will not deliver a product upon which successful marketing can be built.

Products like oranges and apples are distributed by these organizations over the whole marketing period. Their members get a final return representing the average market of the season, with perhaps some of the low spots avoided and with sales pushed just a little on the peaks of the price curve. The growers are taught to regard the market as a continuous outlet with which their association must continually deal.

Thus the best cooperatives tend to subdue the gambling spirit in their members. Returns become a matter of averages and not the results of shooting at the high spots in the markets.

Perhaps the most important contribution to the general stability of the industry attributable to cooperative organization is its psychological effect. If the affairs of the association are open to the membership and each grower has a voice in its management, there is a confidence that the individual is being fairly dealt with, which contributes much to the sum of his satisfactions. Even the local buyer, once looked upon as a parasite, is now a good neighbor because the grower knows just about how much or how little he can make at the prices he is paying. The sales department of the association can assure him on that point. In this case comparisons are not odious but helpful.

In his relations with the carriers the mind of the grower is more at peace in his association than on the outside. The independent small shipper is not able to handle claims as well as can the claim department of a large cooperative. As a shipper of an occasional car, the grower is likely to think the carrier arbitrary and to harbor resentments which make for instability. He is likely to be satisfied that the association is securing better treatment than he, individually, could command. The total of the claims collected appeals to him

as evidence that he is not being victimized by the railroads —unless it be in rates, and he knows that this quarrel belongs elsewhere.

There is profound satisfaction in the knowledge that his neighbors are faring like himself and it is easier to carry on with the group than alone. The association also often owns valuable property which has a steadying and satisfying effect on the membership.

POOLING OF SALES

Pooling is perhaps the one outstanding development in marketing which may be attributed wholly to the influence and genius of cooperative organization. Pooling was impossible without a fairly effective system of grading, yet pooling was essential to any equitable system of making returns to the growers when the quantity of product to be sold made it necessary to search for outlets.

Nothing could more certainly breed jealousy, suspicion, and resentment than a notable difference in the returns made to growers for similar products shipped on the same day. As long as each grower was to be handed returns on his individual shipment it was almost impossible to deny him the right to say to what market his goods should go. He should also be consulted as to whether his shipment should be sold on a certain cash offer which had been made, or rolled on consignment to some market of his choosing. To grant the grower these rights is to render the sales department of an organization impotent. Distribution cannot be improved. New markets cannot be pioneered. Gluts, though obvious to the management, cannot be avoided.

But if the management is to be given a free hand in the matter of distribution, it must see to it that only like goods are pooled. Like goods implies uniform standards uniformly applied. This means grading effectively done. Going farther back, this implies grading at a central packing house or shed by persons no more interested in one lot than in

another, or, if ranch packing is a necessity, it means very careful and impartial inspection of every lot before the association accepts responsibility for its inclusion in any grade or pool.

In many organizations the problem has been worked out to the point where almost everything is pooled. The sales department is then free to develop new markets without the danger of sending some one man's car to be sacrificed in the process of introduction. If the first venture into a new market results in a lower price than would have been realized in a large city, the loss is distributed over all the products of like kind and grade in that pool. Some dealer in the new market may, however, have been encouraged to become a carload buyer and later business may justify the first venture, all made possible by the pooling system.

Pooled sales are an evidence of cooperative marketing in an advanced stage or of a reckless disregard of justice between growers. With products fit for pooling and with pools intelligently made as to varieties, sizes, grades, and dates, the community of interest among the growers is well-nigh complete. Only when this community of interest has been recognized and loyally accepted has the cooperative been able to make its best contribution to the progress of the industry.

Whether the development of better standardization made pooling possible or whether the necessity of pooling made careful standardization imperative there may be some doubt. The latter seems the logical conclusion, for it must be granted that, taken as a whole, the western cooperatives which were compelled to pool the shipments of their members were the leaders in improved methods of grading and packing their products. Standardization as a factor in the evolution of marketing is treated more fully in another chapter, but is mentioned here as having been largely the outgrowth of cooperative effort and of the necessity which the competition of the grower's organizations forced upon the independent operators.

Had buyers always come seeking all that the West could produce, and more, it is probable there would never have been any pooling of sales. It was the necessity of seeking markets for an ever-increasing output which made it imperative to weld the growers' organization into a unit rather than a nominal union. In many branches of the industry this has been a slow process and is yet far from complete even in many cooperatives. Efficient distribution was impossible until the sales department could treat each car as seemed best for the industry, and place it where business judgment dictated, without the fear of a riotous settlement with its owner.

We give the system of pooling a large part of the credit for the completeness with which the small markets, as well as the large, are now supplied with most of the fruits of the far West. The goods of independent buyers and shippers now compete with those of cooperatives in nearly all markets and in many cases they are fully as well packed and are graded with equal care, but it seems fair to give the cooperative movement credit for bringing about or at least hastening this condition.

Not all cooperatives have yet learned that a pooling system is essential to permanent and large-scale success. Up to this time (1927) the Georgia Peach Growers' Exchange is still operating on the plan of returning to each grower the price at which his individual car sells. The competitions and rivalries, the jealousies between neighboring shipping points, the traditions which say that a certain soil or location produces better fruit than others near by, are all legacies from the days of unlimited individual competition and disorganized marketing. The spirit of union now demands that a large group stand together as against the independent buyer and the solicitors of consignments. It does not yet demand a standardization rigidly applied to all products which would make a pooling plan practical.

The struggles of this Georgia group toward genuine marketing efficiency are perhaps typical. They are cer-

tainly educational. With leaders who said in private that a pooling system must precede the efficiency which the exchange should develop, a great mass meeting was held in 1924 to determine basic matters of policy, and the subject of pooling sales was not once mentioned. The great bulk of the fruit is packed on the farm where grown, and no man yet trusts his neighbors' grading. The management is gradually urging official inspection on the membership as an aid to individual sales. When it is demonstrated that all U. S. No. 1 peaches have the same market value regardless of the name of the owner, or the location of his orchard, the way may be opened for a system of pooling which will soon enable the exchange to dominate the local industry. The steady progress of many cooperatives toward this goal is one of the most convincing signs of the vitality and permanence of the movement.

THE COOPERATIVE AND THE AUCTION

We shall not devote a chapter to the organized auctions, as these institutions are fully and fairly discussed in a recent bulletin by the United States Department of Agriculture.[1] They handle, however, an increasing quantity of fresh fruits and vegetables and are patronized extensively by organized growers.

Auction selling is by sample, and this implies that the goods must be uniform in quality under each grade or mark. In so far as the cooperative has secured uniformity of pack it has made its products potentially available for the auction room. In so far as the volume of its business has made its patronage valuable it has been possible to employ able and watchful representation in the markets and at the auctions.

Independent shippers whose operations are large enough to make their brands known, and who by the ownership of

[1] Admer D. Miller and Charles W. Hauck, "American Fruit and Produce Auctions," Bureau of Agricultural Economics, Department Bulletin No. 1362.

packing houses or otherwise can secure reasonable uniformity under their brands, also use the auctions. Their goods may be fully as good as any of those of the cooperatives. Yet it seems fair to conclude that the cooperative movement has done much to stimulate the organized auction and has furnished a sustained volume of suitably standardized products without which the auction could not have reached its present importance.

The auctions are rather generally recognized as the markets in which the highest prices can be obtained for a limited quantity of the best goods. It is also charged that prices are sometimes slaughtered more ruthlessly in the auction room than ever happens along commission house row. Intelligent use of the auction therefore is of the utmost importance, and the best cooperatives probably afford their members better service in this particular than could be had from any other sales agency.

TRADE-MARKS AND BRANDS

A brand increases in value as the public becomes better and better acquainted with it. A brand which was seen only a few weeks in the year could have relatively little value. The cooperative, by consolidating a large tonnage from many producers, uniformly graded, is able to prolong the marketing season as far as the nature of the product will permit. In this way the brand or trade-mark of the association is kept before the trade for the longest possible season. Whatever reputation it wins is the common property of all the members. They have a proprietary interest in it which is different from any which they can obtain in the brand of any distributor through whom they may sell.

We may credit the cooperative movement with having reduced the number of brands which would otherwise have been on the market and with having made a few brands well known and valuable. This has been a service to both producer and dealers.

Brands are likely to be of less value in the future than in the past. Standards, which are more uniform and definite measures of quality than are brands, are now being applied by impartial graders to constantly larger volumes of perishables. Relatively few brands have followed fresh fruits and vegetables into the hands of the consumer. Their greatest significance has been to the grade. The trade is rapidly learning to prefer to buy under a grade specification rather than under a brand. Yet the brand has had an important place in the evolution of the industry and the cooperative associations have done much to make their brands mean something definite.

EFFICIENCY OF VOLUME

Several cooperatives now have a membership which gives them a volume much larger than is likely to be handled by any independent dealer. As their interest is in the welfare of the producing community they concern themselves with the disposition of the entire output. In some cases they provide for the manufacture of by-products from low-grade fruits. In any case they are in position to utilize all the outlets of the trade, as those with smaller volume cannot do. Legal restraints on combinations by dealers tend to limit the size of the trading unit or unified group in this industry. This makes it possible for the cooperative to be, as it is in many cases, the largest marketing unit in its region or dealing in its commodity. As such it is able to serve its members as none of its competitors can do.

The efficiency which inheres in the larger unit, if well managed, and the psychological satisfaction of the grower in feeling that so many of the marketing processes are being handled in his interest, will together guarantee the continued growth of cooperation among fruit and vegetable growers. For reasons discussed in the last chapter, the vegetable industries are less hopefully organized than are many of the fruit-growing groups, and there is every reason

to expect that this difference will continue. It will be very difficult to unite growers of quickly perishable, short-season vegetables into large and permanent units for marketing purposes. They cannot, with the same degree of safety, make equally large investments in real estate and equipment for the use of the organization. They can hardly hope to secure such advantageous financing as do the large fruit-marketing groups and in every way they will continue to find much greater difficulty in realizing the economies of truly large-scale operations.

The potato and sweet potato appear to offer possibilities. The very general failure of growers' marketing organizations for late potatoes up to the present is no proof of the impossibility of success. So far as the writer knows, only two cooperative marketing associations of late potato growers organized on modern plans have lived through a good and a bad year. The Colorado Potato Growers' Exchange is the only one which adopted and adhered to a rigidly uniform system of grading, confirmed by official inspection of every car. Several of those which have come and gone in recent years have announced uniform grades but have had no means of securing them.

The Eastern Shore of Virginia Produce Exchange is not a cooperative of the modern approved type. Its success has been outstanding and it has always been identified closely with the producers' interests. The concentration of tonnage in a small area, representing so large a part of the total supply at its harvesting season, makes the situation on the Eastern Shore of Virginia unique. No northern district with a crop which moves out through many months and in keen competition with many other similar districts can safely predicate its own plans for organization and operation on what has been done by this pioneer exchange in a strictly new-potato shipping area.

The efficiency made possible by a large tonnage appeals to all organizers. In fact, some active cooperatives have rather openly sought monopolistic control of their products.

In handling nonperishable products this tendency and temptation is more marked than in marketing perishables. A monopoly in strawberries could be broken by a buyers' strike of 24 hours. A successful monopoly of any annual vegetable crop for one season would defeat itself by the overwhelming tonnage which would be grown the next year.

The public has, therefore, little to fear from the size and strength of the cooperative which handles strictly perishable products grown by its own members. In this field monopoly brings its own cure. Experienced managers see this and do not want to be responsible for all the tonnage grown.

The American Cranberry Exchange furnishes a good illustration of a cooperative in control of the major part of the output of its commodity, yet most students of its operations have concluded that its influence on the market is not detrimental to the consumers' interest.[2]

THE SMALL COOPERATIVE

There is much production in the nation as a whole which is scattered in widely separated localities and in quantities too small to permit the organizing of large marketing units. Local organization is possible and often in evidence. The volume of business, however, will not justify the organization of a permanent sales force.

These groups can gain by organization the advantages of wholesale purchase of supplies. They can bring about uniform systems of grading. They can thus improve the reputation of their products in the markets. They can load full cars of like grades. But unless theirs is a stored product with a long marketing season, they are at a great disadvantage if they undertake to do their own selling. It is practically out of the question for a salesman such as a group of this kind can hire to be in touch with all the people he should know in the many cities which their product should reach.

[2] Asher Hobson and J. B. Chaney, Dept. Bulletin No. 1109, U. S. Dept. of Agriculture.

Should safeguards be provided to make these groups willing to entrust their selling to agents or commission men in the markets, they could work out their own distribution among the large cities within their reach. Today, however, the last thing these small associations want to do is to consign. Their ambition is to sell f.o.b. or rolling.

As a result of these conditions we have many instances in which the local organization functions independently up to the point of selling its goods, but employs for that purpose a larger marketing agency. Here is the logical and truly useful field for the general distributor, the man or organization which is constantly in the market with seasonable goods for sale by the carload. The number of such agencies has increased notably in recent years, and they are filling a vital need in the present state of the development of the industry.

The small cooperative is a valuable middleman. The public derives practically the same advantages from its organization as from the larger cooperative. It stabilizes the industry. It standardizes the product. It sends full cars of like goods to market. If then it employs competent salesmanship, there is little question that it pays the growers to support it. Without it the choice of outlets would not be as large as in the district of heavier production. Neither would the dealers on the ground nor the buyers who came at the harvest be so well equipped as those in the larger districts.

The fruit and vegetable industries have reached a point at which the local cooperative is especially needed in every district of relatively small commercial production which is at a distance from its markets. Without it the community is almost sure to become dependent, with regard to this industry at least, upon the prosperity and good will of one or two dealers and who may themselves have but limited market contacts. The local organization can often secure the services of better salesmanship than any which the community itself affords.

The cooperative, whether large or small, results in reducing the number of easy victims for the irresponsible trader or solicitor and thus contributes tremendously toward ridding the industry of one of its worst curses. The average grower in the unorganized community, especially in those regions in which the fruit and truck industries are new, is likely to be as ignorant of modern methods of marketing and of the intricacies of the produce trade as he is of Sanskrit.

The conditions of trade tend, on the other hand, to develop a considerable group of the shrewdest sort of operators in the cities. These fare forth from time to time, in person or by solicitation through the mails, looking for business or for victims. The printer will produce just as imposing and attractive a letterhead for the worst scoundrel as for the most reliable firm in town. It is simply a matter of paying the price for paper and printers' ink. The cooperative, by centralizing the business of many growers, lessens the field in which the irresponsible dealer may work.

COOPERATION AND LEGISLATION

The cooperative movement has been hailed as such a boon to agriculture that many legislators have laid plans for the curing of all the farmers' ills by helping him to organize. Definite and useful as is the place of the well-organized association, few, if any of them, have turned poverty into wealth, nor have they been able to persuade people to eat more than three meals a day. Cooperation cannot cure overproduction except by reducing the amount grown. It cannot reduce the amount as long as it is efficient enough to get a price at which the grower can live.

Cooperation, therefore, cannot insure the prosperity of the fruit or vegetable industries while we have immense areas of relatively cheap land readily convertible from its present uses. The history of cooperation thus far is that it has come most frequently to save an industry or a neigh-

borhood in the throes of near-bankruptcy. Sometimes it has saved only a remnant.

The stabilizing influences already mentioned have appealed to legislatures, and the states have very generally repealed or passed laws as proved necessary to give the cooperative a free field in which to operate. Further than this, legislation is not likely to prove permanently helpful. To relieve cooperatives of the accusation that they restrained trade, Congress, in February, 1922, passed the Capper-Volstead Act.

Although hailed as a measure to exempt cooperatives from the operation of the Anti-Trust Law, this act requires every organization claiming its protection to subject itself to the scrutiny of the Secretary of Agriculture on the filing of complaint that it has done those things which the Anti-Trust Law was intended to stop. It is noteworthy and very significant that during the five years since this act was passed, not a single cooperative has been brought before the Secretary of Agriculture on complaint.

The Department issued in mimeographed form for the information of those interested the following statement, together with the text of the act.

Statement Relative to and Text of Capper-Volstead Act

This Act does not provide for the incorporation of cooperative associations and makes no provision for their formation. Those interested in organizing or incorporating such associations should look to the laws of their respective states relating thereto. The Act does not change or supersede laws of the various states affecting or relating to the regulation of cooperative associations. So far as this Act is concerned, such state laws are all in effect. Compliance with the conditions set forth in this Act does not relieve an association from the operation of state laws.

Congress under the constitution has control over interstate and foreign commerce, and this Act deals only with the operations of cooperative associations in such commerce; and then *only* with such associations as comply with certain conditions prescribed therein. The test which those interested in an association should

apply to learn if their association comes within the scope of the Act is—does the association meet the conditions set forth therein. These conditions are:

A. "That persons engaged in the production of agricultural products as farmers, planters, ranchmen, dairymen, nut or fruit growers may act together in associations, corporate or otherwise, with or without capital stock, in collectively processing, preparing for market, handling, and marketing in interstate and foreign commerce, such products of persons so engaged." This, and other language which appears in the Act, make it plain that a cooperative association to come within the Act must have *only producers* as stockholders or members. This is true whether it is incorporated or unincorporated, and whether it is organized with or without capital stock. It is clear from the foregoing that an association that is in part composed of, or whose membership contains, or a part of whose stock is held by, those who are not producers does not come within the Act. This would, of course, exclude all associations that have other than producers as members or stockholders.

B. Associations that desire to come within the Act, must be "*operated for the mutual benefit of the members thereof,* as such producers, and conform to one or both of the following requirements:

> "First. That no member of the association is allowed more than one vote because of the amount of stock of membership capital he may own therein or
>
> "Second. That the association does not pay dividends on stock or membership capital in excess of 8 per centum per annum.
>
> "And in any case to the following:
>
> "Third. That the association shall not deal in products of non-members to an amount greater in value than such as are handled by it for members."

Associations must comply with either the first or second condition and may comply with both. As the first condition embodies the one man, one vote principle, all associations operating on this basis, or which elect to operate on this basis, need not, unless they wish to do so, give consideration to the second condition. Of course, an association, if it desires, may operate in accordance with both of these conditions, but it will come within the scope of the Act by complying with only one of them, if it complies with the other conditions of the Act.

If an association elects to operate under the second condition,

dividends on stock or membership capital are limited to 8 per cent per annum. This does not mean that stock may be owned by, or sold to non-producers so far as this Act is concerned. Only associations whose stock is entirely held by, or whose membership is entirely made up of producers can come within the Act. It is not necessary for associations operating under the Act to pay dividends in any amount unless they elect to do so. It is entirely a matter of choice with them. If, however, an association elects to operate under the second conditions, dividends, if paid, must not exceed 8 per cent per annum.

All associations desiring to operate under the Act must meet the third condition, which is that the value of the products handled for non-members shall not exceed the value of those handled for members. This condition does not mean that an association shall handle any business for non-members. It may do so or not as it sees fit. If it does handle such business, however, the Act specifically provides that the value of the products handled for non-members must not exceed the value of the products handled for members.

Under section 2 of the Act it is the duty of the Secretary of Agriculture, if he believes that any association operating under it monopolizes or restrains trade in interstate or foreign commerce to such an extent that the price of any agricultural product is unduly enhanced by reason of such monopoly or restraint of trade, to serve upon such association a complaint with respect to such matters requiring the association to show cause why an order should not be made directing it to cease and desist from monopolization or restraint of trade. After a hearing, if the Secretary of Agriculture believes that such an association monopolizes, or restrains trade in interstate or foreign commerce to such an extent that the price of any agricultural product is unduly enhanced thereby, the Act provides that he shall issue an order reciting the facts found by him and directing such association to cease and desist from monopolization or restraint of trade. If such order is not complied with by the association within 30 days, the Secretary of Agriculture is then required to file a certified copy of the order issued by him together with certified copies of all records in the matter in the District Court of the United States in the judicial district in which such association has its principal place of business. The Department of Justice has charge under the Act of the enforcement of such order. The District Court of the United States is given jurisdiction to affirm, modify or set aside the order, or to enter such other decree as it may deem equitable.

(PUBLIC-NO. 146 67TH CONGRESS)
(H. R. 2373)

An Act to Authorize Association of Producers of Agricultural Products

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That persons engaged in the production of agricultural products as farmers, planters, ranchmen, dairymen, nut or fruit growers may act together in associations, corporate or otherwise, with or without capital stock, in collectively processing, preparing for market, handling, and marketing in interstate and foreign commerce, such products of persons so engaged. Such associations may have marketing agencies in common; and such associations and their members may make the necessary contracts and agreements to effect such purposes: Provided, however, That such associations are operated for the mutual benefit of the members thereof, as such producers, and conform to one or both of the following requirements:

First. That no member of the association is allowed more than one vote because of the amount of stock or membership capital he may own therein, or,

Second. That the association does not pay dividends on stock or membership capital in excess of 8 per centum per annum.

And in any case to the following:

Third. That the association shall not deal in the products of non-members to an amount greater in value than such as are handled by it for members.

Sec. 2. That if the Secretary of Agriculture shall have reason to believe that any such association monopolizes or restrains trade in interstate or foreign commerce to such an extent that the price of any agricultural product is unduly enhanced by reason thereof, he shall serve upon such association a complaint stating his charge in that respect, to which complaint shall be attached, or contained therein, a notice of hearing, specifying a day and place not less than thirty days after the service thereof, requiring the association to show cause why an order should not be made directing it to cease and desist from monopolization or restraint of trade. An association so complained of may at the time and place so fixed show cause why such order should not be entered. The evidence given on such a hearing shall be taken

under such rules and regulations as the Secretary of Agriculture may prescribe, reduced to writing, and made a part of the record therein. If upon such hearing the Secretary of Agriculture shall be of the opinion that such association monopolizes or restrains trade in interstate or foreign commerce to such an extent that the price of any agricultural product is unduly enhanced thereby, he shall issue and cause to be served upon the association an order reciting the facts found by him, directing such association to cease and desist from monopolization or restraint of trade. On the request of such association or if such association fails or neglects for thirty days to obey such order, the Secretary of Agriculture shall file in the district court in the judicial district in which such association has its principal place of business a certified copy of the order and of all the records in the proceeding, together with a petition asking that the order be enforced, and shall give notice to the Attorney General and to said association of such filing. Such district court shall thereupon have jurisdiction to enter a decree affirming, modifying, or setting aside said order, or enter such other decree as the court may deem equitable, and may make rules as to pleadings and proceedings to be had in considering such order. The place of trial may, for cause or by consent of parties be changed as in other causes.

The facts found by the Secretary of Agriculture and recited or set forth in said order shall be prima facie evidence of such facts, but either party may adduce additional evidence. The Department of Justice shall have charge of the enforcement of such order. After the order is so filed in such district court and while pending for review therein the court may issue a temporary writ of injunction forbidding such association from violating such order or any part thereof. The court may, upon conclusion of its hearing, enforce its decree by a permanent injunction or other appropriate remedy. Service of such complaint and of all notices may be made upon such association by service upon any officer or agent thereof engaged in carrying on its business, or on any attorney authorized to appear in such proceeding for such association, and such service shall be binding upon such association, the officers, and members thereof.

Approved, February 18, 1922.

VIII

MARKETING THROUGH FACTORIES

Diversity of products. Dried, evaporated and processed fruits. Semi-perishable farm products. Localized product. Condition on delivery. Not a consumer's product. Processing California dried peaches. Other fruits. Growers' option limited. Single use varieties. Canned peaches. A crop with one outlet. Overplanting. Economic considerations. When will a cannery pay? Vegetable canning. Peas, kraut, asparagus. Tomato canneries. The industry in Florida. Free goods. No price to the grower. Chesapeake Bay industries. Advantages of the cannery outlet. Tomatoes for canneries exclusively. Cannery obligation, a Utah case. The manufacture of apples. Utilization of culls. What makes a cull? The factory and the farmer.

THE canning and drying of fruits and vegetables, the manufacture of pickles, vinegars, condiments, juices, preserves, jellies, jams, and other products derived from these perishables, constitute a great group of industries, some of which are but little related to the others. These industries, taken as a whole, furnish an outlet for an immense volume of raw products. Studied separately they are found to furnish a great many different markets for as many different products. Each of these markets has its own peculiarities of demand and of organization and must be reached, bargained with, and supplied in its own way.

Obviously it is impossible in a work of this character to go into any considerable detail in the study of these outlets or their exact needs. We are discouraged by the well-known fact that the figures upon a thousand hills (and on as many tall buildings) proclaim to the world that one establishment alone produces 57 varieties. We shall attempt then only a general treatment of this development in fruit and vegetable marketing and utilization, with a few glimpses into some of its inner workings, with a further effort to correct some popular misconceptions on the subject.

DRIED, EVAPORATED AND PROCESSED FRUITS

Drying is unquestionably the most ancient of all the arts of preservation. Long before man was skillful enough to make vessels for the pressing of juice and watertight bags for the fermentation and storage of wine, we may safely assume that he dried wild fruits in the sun and kept them for later use.

There are thousands of fruit growers on the Pacific Coast today who dry their entire crops of apricots, peaches, pears, prunes, figs, and grapes in the sun, producing relatively nonperishable products by natural means. No equipment is needed beyond the pitting knife and the drying trays. These producers are not marketing fruit in the ordinary sense. They have decided instead to market an article which can be stored and sold at pleasure. They have escaped the problems involved in the shipment and distribution of fresh perishables and have chosen to face others.

These growers may combine to process and package their goods and may employ their own sales agents. Their alternative is to sell to local packers. These packers are merchants who buy the dried fruits from growers and give them such further cleaning, grading, processing, and packaging as may be necessary to fit them for the markets to which each caters.

Sun-dried fruits may be kept in bulk for long periods. Thousands of tons are held in warehouses just as they come from the ranches, but they are by no means ready for the consumer. Peaches, for example, are split and dried without any attempt to remove the skin or even the fuzzy covering of the skin.

THE RANCH PRODUCT

These fruits grow in a climate free from summer rains. The practical certainty of dry, sunny weather through a period of many weeks is the very basis of the whole in-

dustry. Dry weather is dusty weather. Those who have traveled in such regions have seen many trees so covered with dust as to hide the real color of both foliage and fruit. Furthermore practically all figs are allowed to fall, and most of the prunes and apricots intended for drying either drop naturally or are shaken off and picked up. Clean cultivation during the dry season is the rule in most of these orchards. Thus, the fruit falls into soft, mellow, dusty soil. This system insures the full ripening of the fruit and the highest possible sugar content, but it also insures fruit that is sandy or dirty as it comes from the orchard.

Washing fruits before drying on the ranches is not generally practiced. It would be an unstandardized process at best. Even if washing were thoroughly done, the fruit must later be exposed to dust for some days during the drying process.

It is impracticable for the rancher to separate the large peaches from the medium sized and the small of the same variety. The transient labor which he must often hire is paid on a piecework or per pound basis. They are not graders of the fruit nor expert judges of the quality to be expected in the finished product. One gang brings from the orchard the entire product as ripened to the moment. Another gang splits the peaches, removes the pits, and spreads the halves on the trays. The trays then go to the drying yards for exposure to the sun.

It is evident that the ranch product is not a consumer's product either in cleanliness, grade, uniformity, or finish. It is in fact the raw product for further manufacture. The further steps in preparation and marketing will differ in detail for each kind of fruit. Without attempting to describe them all we will note the steps in the case of peaches.

PROCESSING CALIFORNIA DRIED PEACHES

Upon delivery to the association or packer a composite sample is taken for each variety. This is run through a

sifting machine of some sort to determine the percentages of the various trade sizes. A purchase price, or a basis for an advance, is determined by the result of this sifting. A small amount of dirt and foreign material, leaves, twigs, and the like, may be separated entirely by screens and drafts and the weights for the load determined on the cleaned basis. The stock is now held in bulk until wanted for market. The sales may be spread out over most of the year.

Processing may not be identical for all sizes and grades, but the better grades at least will go through the "peeler." This is a machine in which the dried halves are subjected to a bath under fine jets of water and are scrubbed or polished by revolving brushes. They emerge well cleaned of any dust or dirt they may have brought from the field or drying yard, with most of the fuzz removed and with any ragged pieces of flesh whipped off. They are plumper and more pliable than before.

They may now go through a bleaching chamber and finally come to the packers sterilized and properly humidified—that is, carrying just enough moisture to make them attractive to the consumer without endangering their keeping quality.

Finally they are packed by hand in small paper cartons, each carton separately weighed to the exact ounce on small balances with which each packing bench is furnished. Here at last is the consumer's package, but still thousands of miles from the consumer. If the grower sold to a packer he completed his marketing at the door. If his association owns the house and sells its own products the real marketing remains to be done, and while he may have a substantial advance it may be months before his exact returns will be known.

OTHER FRUITS

The general procedure is much the same in the great raisin industry. The prune industry is somewhat similarly

organized, but many prunes are grown in regions where some rainfall may be expected at the ripening season so that the entire drying process is carried through mechanically. The preparation of dried prunes is by no means a simple mechanical process. Washing, sizing, chemical treatment, rewashing, and evaporation to a fixed moisture content, and careful packaging are all involved. Dried figs are processed mechanically but eventually each fig is packed, or split and pressed, by hand.

LIMITED CHOICE OF OUTLETS

These industries do not offer an outlet for unsalable cull products. At best they utilize "orchard run." Only within very definite limits does the grower have an option as between drying his fruit and shipping it fresh. Such option as he has he must exercise before the opening of the shipping season, for the selling arrangements for fresh fruit cannot always be made and packages secured at the last moment. Associations must know with some degree of certainty about what volume of business they are to handle when arranging for financing the season's output of either fresh or dried products.

Generally speaking the varieties of prunes grown for the dried prune trade are not desirable for shipping as fresh fruit. The fresh prune market is supplied chiefly from a region in Idaho and eastern Washington.

The best drying peach has a thick, solid, firm flesh. No eastern housewife would select it for serving as peaches-and-cream. For this we prefer a soft, tender, juicy variety.

The best raisin varieties of grapes are also good table grapes, so that in this industry a choice of outlets may be made year by year. This is not true in the case of the grapes formerly grown for the wineries and now known as "juice grapes." These have many and large seeds, little pulp, and become "leaky" during long hauls to market. They can never be marketed in large volume except for

juice purposes. They would be utterly unsalable as raisins, if indeed they could be successfully dried.

The discussion of dried and evaporated apples will be taken up later.

CANNED PEACHES

We look to California for most of our canned peaches and pears. What sort of market do these canneries furnish? Are they omnivorous or discriminating? Do they take the grower's culls at an attractive price?

The canned peaches for which the state is famous are made from a firm-fleshed, yellow, cling peach. It is not generally salable in the East as a fresh peach. Only in years of exceptionally high prices can it be shipped fresh at any profit.

As a rule these orchards are planted for the sole purpose of supplying the canneries. In no sense are these canneries an outlet for culls or otherwise unmarketable fruit. Neither are they generally in the market for surplus or cull stock of varieties usually shipped fresh. They are, in fact, simply the finishing agency in a specialized industry which produces its own peculiar raw material—a particular type of peaches.

When farmers in other peach-growing areas, who are primarily producing for the fresh fruit market, propose building canneries to take care of culls and unmarketable stock, they are prone to overlook the fact that they must compete in the canned goods market with this highly specialized product. Thus far the only limit to this production has been the consuming capacity of the market. It has been expanded whenever the demand justified further planting. The crop of 1927 was so large and the price so low that the business appears to be overdone. Thousands of acres of young trees are coming on. Canneries are the only outlets.

California-canned peaches of the higher grades come from the can in unbroken halves. When served they are

as firm as a good, ripe, freestone peach in the fresh state. They are grown in a region free from the curculio which causes the wormy peaches with which eastern growers are so familiar.

Considerable quantities of freestone peaches are canned in California, and for this stock the canneries and the eastern markets furnish alternative outlets. When eastern crops are light, the canneries get relatively few. The soft, bruised, damaged or otherwise defective peaches go into the "pie grade," which is the cheapest and lowest grade of canned goods. These, however, are incidental to the canning business and not its chief product.

ECONOMIC CONSIDERATIONS

We have been leading up to this question: How much can an eastern cannery pay the grower for freestone peaches of soft texture and unmarketable quality, to be sold in competition with these specialized goods? Put in another way we may ask: Can eastern growers reasonably expect a cannery, either corporate or cooperative, to furnish a profitable outlet for market surpluses of fresh, table stock?

Answers to these questions are obvious and point to the inevitable conclusion that canneries operating on such market surpluses—almost inevitably somewhat soft or overripe—must secure the peaches at a nominal price. They may save the fruit from utter waste, but they cannot be expected to save the grower from any loss he might otherwise incur on his season's operations.

The specifications for pears to be delivered to California canneries have in some years excluded any fruit which would not cut into two perfect halves. Small encouragement for the grower seeking a market for culls. Eloquent warning to those growers who would finance a cannery to take care of an occasional market surplus.

The California Bartlett pear is perhaps the best illustration of a fruit crop which is divided among three outlets.

The fresh fruit markets of the East, the cannery, and the drying yard are all patronized each year, but in varying proportions. In seasons when prices for fresh fruit are unprofitable the major portion of the crop may be either canned or dried. It is the settled policy of the growers' association to keep enough dried pears on the market to maintain a demand, although when fresh fruit prices are high very little drying is done.

Fig canners and preservers along the Gulf Coasts of Louisiana and Texas take the entire product of the grower. The fig packers of California do the same, but the prices for the smallest sizes and the culls are so low that no one would grow figs if he were forced to sell his entire crop at those prices.

With the possible exception of apples it is safe to say that fruit canning is an industry which contemplates the use of the whole crop of the grower or of the community. It is a case of growing the right kind and quantity of fruit for the cannery, not of building a cannery to save unsalable fruit.

VEGETABLE CANNING

We cannot generalize with reference to canning vegetables as we have concerning fruits. Canned peas are from crops grown exclusively for the cannery. The varieties preferred are generally unsuitable for sale as green peas. The method of broadcast planting, or close drilling, practically precludes hand picking of the pods. The entire crop is harvested, shelled or threshed and sifted by machinery. The entire process of harvest differs from the preparation of fresh peas for market as radically as the handling of hay differs from the handling of asparagus.

Kraut factories, on the other hand, are in constant actual or potential competition with the general market in buying cabbage for cutting. If crops are grown under contract for the cutters, the price is based upon market probabilities. The factory is distinctly an alternative outlet for the com-

mercial grower. In the long run it must pay approximately the market price, less freight and other selling expense. It is then simply a part of the general market for cabbage, peculiar only in its preference for the largest stock. Kraut factories now take about one-seventh of the commercial cabbage crop.

Asparagus goes to the factory under still different arrangements. Most of the canning is done in California. The same regions sell large quantities of fresh asparagus to eastern markets. The canneries cannot live if they must buy at the highest market prices. Arrangements with growers may provide that shipment may be made until the price declines to a certain point after which all the product is to come to the factory. Or certain sizes may be released for shipment or cash sale up to a certain date, or as long as a stated minimum price is exceeded.

The underlying conditions are that the growers cannot hope to market the entire product of the present acreage without the cannery, and the cannery cannot expect the growers to forego all of the attractions of the early market. The safety of the industry, and of the capital invested in canneries, depends upon splitting the product between the two outlets. However, production now taxes both outlets, and canners are offered more than they want.

The annual pack of tomatoes exceeds that of any other vegetable. Tomato canneries have been built in greater numbers and scattered over a wider area than have canneries for any other fruit or vegetable. They have been the causes of many disappointments to groups of growers and to enthusiastic chambers of commerce which have promoted them. Too often the conditions prerequisite to success have not been understood. In many communities the industry has come and gone. Yet successful tomato canneries are today very widely distributed and operate under widely differing conditions. What are the outstanding features of the industry in each typical district and how does the cannery fit into the local marketing plan?

THE TOMATO CANNERY IN FLORIDA

Florida ships several thousands of carloads of tomatoes to market each year. The most intense production is on the east coast south of Miami. The stock is picked in the "mature green" stage. Tomatoes which show any tinge of pink or red are discarded as too ripe or soft for shipment.

This fruit goes through packing houses comparable to those in the orange or apple districts. Some "pinks" may go into local consumption, but most of them go into the cull pile along with the misshapen, the cracked, and the otherwise defective stock. Hundreds of tons of these culls are produced within a few square miles. Packing-house managers hire trucks to haul them off into the woods. They often lie 10 feet deep under the end of the cull chute.

Here then is what the economist calls a free good. There are so many cull tomatoes that at the packing house they have no value but are a positive expense. Can they be utilized? Even the ripest are far too green to can. Those picked at what is considered the right stage of maturity for shipping as green-wrapped stock are expected to ripen after about seven days in cool temperatures in transit and perhaps another seven days in the ripening rooms at the north. Exposed continuously after picking to the mild atmosphere in which they have grown, they ripen and soften more rapidly. The cull dumps in the open pine woods soon contain fruit in all stages of ripeness. Here we have the basis for an industry.

Several canneries operate in this territory and use nothing but packing-house culls. They pay just enough to make it worth while for those who have unemployed teams or trucks to pick over these cull piles and haul the ripened fruit to the cannery.

This price is so low that it would not pay for picking the tomatoes one by one from the vines and for their delivery. The cull tomatoes are, to the last, practically free goods—only the labor is paid for.

These factories have a continuous supply, for when the first culls are ripe it is certain that others will be ripening every day. Their sole problems of supply are to secure access to enough dumps and engage enough haulers, or to engage enough haulers who have secured the privilege of working certain dumps. Only in rare cases does the grower get anything for his culls.

These canneries are private enterprises. Their operations may show a profit. They convert tons of raw stock into canned goods. They utilize what would be a waste. They are an economic asset to the country. They should put out a cheap product; indeed they must, for the stock used is not of the desirable, firm fleshed, meaty type. Yet in the general marketing scheme they are scavengers, using that which otherwise would become a nuisance.

The marketing of the winter tomato crop of Florida is practically unaffected by the presence of these industries. Their operation or suspension is a matter of almost no concern to the grower. He is busy trying to get off to market the largest possible quantity of green-wrapped fruit. Usually he has not culls enough to make it worth his while to rehandle them, and his time is too valuable to allow his team or truck to stand under the chute while his stock is being graded.

This is the most striking example of a canning industry utilizing nothing but waste. Apple canneries in certain concentrated orchard districts furnish a close parallel.

TOMATO CANNERIES IN THE MIDDLE ATLANTIC STATES

The region around the Chesapeake and Delaware bays is traditionally the center of the canning industry for oysters, fish, and vegetables, especially oysters and tomatoes. This is no longer true statistically, for tomato canning is now an important industry in many states, and the Middle Atlantic region, although still important, is by no means so dominant as formerly.

In this region tomatoes are still grown by contract for the cannery, but many canners do not depend entirely on contract stock. They are in the open market for supplies whenever prices seem to them favorable.

Here, then, the cannery is distinctly an alternative outlet for the grower. The fields are within easy shipping distance of all the larger eastern markets. The canner must offer some inducement to the grower to get him to contract his acreage. These inducements are:

1. A market for the entire output, usually without grading.
2. Acceptance of fruit as it comes from the field without washing or wiping.
3. Return of containers; the grower thus having almost no investment in packages.
4. Price guaranty; the grower can plan his expenditures for fertilizer and labor, knowing that his investment is safe unless he has a crop failure.
5. Time and conditions of payment are known in advance.
6. There are no risks in transit and usually no transportation charges. There can be no "red ink" returns.
7. The farm labor problem is simplified; the cheapest and least intelligent labor can gather tomatoes for the cannery; more intelligence and care are necessary in grading and packing for market.

GENERAL APPLICATION OF THESE PRINCIPLES

A study of these considerations, and of others which may apply even more forcibly in some sections, will show why the factories can contract for vegetables by the acre at prices per pound or per bushel so low as to be ruinous if they came to the farmer as account sales on products packed and marketed through the usual channels.

The canner does not demand the service from the grower which competition in the city market compels him to give

to the jobber or retailer who there handles his goods. The cannery becomes simply the delivery point for the gross product of a certain field, just as the local mill may take his wheat crop when it is threshed. The commercial truck grower is quite as likely to be bankrupt because of an unfavorable market as because of unfavorable weather. The canner's contract relieves the business of rather more than half of its hazards. For these reasons canneries continue to operate successfully in regions adapted to the production of suitable varieties, even in competition with large and easily accessible city markets. Under such conditions they are a valuable alternative or secondary outlet for many perishables.

THE CANNERY AS AN EXCLUSIVE OUTLET

The tomato canneries in Utah furnish practically the exclusive market for the tomatoes grown to supply them. The relatively small city populations within reach are supplied from surrounding irrigated gardens. The large acreages contracted to the canners are grown for them alone and would never be planted if the factory outlet was not at hand.

The factory must pay a price which will secure sufficient acreage to enable the plant to operate approximately at capacity through the canning season. This is essential to the efficient employment of labor. The growers must contract at a price which the factory can pay, based on the orders it can book for goods in advance of the season. The growers dare not hold up the factory for too high a price or they may force it out of business and lose their market and their industry. The factory must not force prices so low that the growers become discouraged and hostile.

Under such conditions, which obtain also in many other regions, the opposing forces in the market are compelled to arrive at a degree of cooperation. It is easy to see how desirable it is that the growers should have an interest in

the earnings of the factory as well as in the price of the tomatoes delivered at the door.

TOMATOES ONLY

The cannery which affords its growers their only outlet must in practice confine itself to the business they furnish. A situation which arose in Utah in 1922 illustrates this point.

The canneries had ordered their cans, labels, case material, and so forth, to care for the tonnage of tomatoes expected from their contracted acreage. The crop is grown under irrigation and the yield can be more closely forecast than in regions dependent upon rainfall. Their labor was hired to operate a full-time day shift six days per week. The tomato crop came on and the canneries were running on schedule.

At the same time the Elberta peach movement was on and a few hundred cars had gone east when an acute car shortage developed. Peaches at that distance from market must be shipped when hard. If picking is delayed for a few days, much stock becomes too nearly ripe to stand the journey.

Thus, suddenly, the peach orchards, as close to the canneries as the tomato fields, were drooping under loads of ripening fruit amounting to several hundreds of carloads. These peaches were doomed to hang on the trees until they withered and fell, for in that climate they seldom rot. Meantime they would pass through the very best stage for canning.

Did the presence of numerous canneries all through the Utah peach belt save the crop? Not at all. They continued to carry out their contracts with their tomato growers and to pack the goods for some of which they had advance orders and on the rest of which they had arranged to borrow money at a given rate per case. They had sold no canned peaches, did not know what advances the banks

would make on them, had no peach labels for their cans, and could have packed them only with a night shift and a 24-hour run. Furthermore, they would then run out of cans before the end of the tomato season and might not be able to get more in time.

So the tomatoes were canned and the peaches went to waste, although they could have been had for the price of picking and hauling. Almost identical conditions existed at the same time on the Western Slope of Colorado. The writer was on the ground, and these details of the situation are presented to illustrate the fallacy of the popular concept as to the place of the cannery in marketing the perishable products of a community.

THE MANUFACTURE OF APPLES

Specific instances can be cited of the canning, evaporating, or pressing of apples which will constitute exceptions to any stated rule concerning this industry. Relatively few years ago the commercial cider mills were an alternative outlet for any but first-class market apples. Certain varieties were valued for their cider-making qualities. The mills found a market for more cider and vinegar than they could make from the unmerchantable stock within their reach.

These conditions are largely of the past. The commercial production of apples for long-distance shipment has become such an important industry that the unmerchantable stock in the areas of concentrated production is more than sufficient to supply the demands of the nation for apple products. In western New York; in the Upper Potomac and Shenandoah Valleys; in the Ozark region; in southern Idaho; in the great apple valleys of Washington and in other less important regions, there are cider mills, evaporators, and canneries, singly or in combination, utilizing exclusively such apples as cannot be sold in the markets for enough to pay for handling and freight.

In years when the crop is very light and prices high, when low grades can be shipped at a small profit, the factory may compete with the general market for these low-priced goods. In years when crops are heaviest and prices low, when markets are most overloaded and the growers are most in need of other outlets, when association managers and packing-house foremen are most particular to grade carefully, when every buyer is in his most critical frame of mind, then the factory can and does secure its entire supply at a price barely high enough to make it worth while to haul the culls to the plant rather than to a dump.

Apple growers as a class evidently have a relatively slight interest in the factory as a market. With a few local exceptions the prices paid by manufacturers must of necessity be so low that no orchardist could continue in business if they furnished his only outlet. The factory cannot contract for the entire apple crop as the canner does for a tomato crop because just as good canned apples, evaporated apples, or apple cider can be made from culls as from the best grades. This is not true of tomatoes or of most tree fruits. Why the difference?

WHAT MAKES A CULL?

An apple may be a cull because of any one of a number of purely surface blemishes. In some states it is unlawful to ship apples showing any marks of San Jose scale. These marks disappear with the peeling. All apples which are bruised or sustain any mechanical injury in the orchard or packing house are culls, although they are not perceptibly hurt for immediate use. When prepared for the can or sliced for the drier the products of these culls cannot be distinguished from those from the best graded stock. Therefore competition will compel all manufacturers to confine their operations to the utilization of culls or apples of the very cheapest grades.

The value of any lot of apples when picked in the fall is dependent chiefly, aside from variety, on two quality factors. These are appearance and keeping quality. Grades, as measures of market value, must be based chiefly on these factors. But these factors do not determine the quality or value of the products into which a factory can convert these apples by immediate use.

Furthermore, immediate use in the case of apples does not imply such speed of handling as is necessary with peaches, tomatoes, cherries, and other more quickly perishable products. Cull apples can be stored in bulk at the factory for at least a few weeks, often for months if need be, and if 10% or 15% which have been mechanically injured decay and become worthless, the money loss is negligible.

The culls of nearly all other fruits and vegetables have inherent defects or have sustained injuries which reduce their value for manufacture. The best products derived from them cannot be sold to advantage in competition with goods put out by a factory utilizing the entire crop, harvested and handled as it directs.

THE FACTORY AND THE FARMER

We have shown that factories in the heaviest apple regions can operate on culls just as do the tomato canneries in Florida. The cull apples, unlike the Florida tomatoes, are ready for the factory as they come from the packing house. They must be hauled from the packing house to the river or to a gully or otherwise disposed of. The factory then need pay only as much as is necessary to induce the owner of the truck or wagon to bring the fruit to the door after it is loaded. Evidently it will not be necessary to pay very much per ton to secure delivery of "free goods" which are already on wheels and must be taken somewhere.

The factory appears in any region after it is evident that there is likely to be a continuous and large supply of apples

which can be had at a salvage price. It is well for the world that they be salvaged. Cheap canned and evaporated foodstuffs result. The operation of the plant may prove profitable. Capital invested may earn satisfactory dividends. But can the factory secure the farmer a profit on his operations in years when he would not realize a profit without it? Again the answer is evident.

We are forced to the conclusion that as a matter of practical economics, the man who plants an apple orchard should not count on the factory as a part of his market, for it is in fact a market for a small fraction of the time of his team or truck, rather than a market for his fruit. One who travels through the apple districts on the Columbia River and its tributaries during the packing season may see trucks on almost every bridge dumping tons of culls into the streams.[1] They may not be worth enough to pay for the time required to haul them to the nearest factory. In fact, every eddy and backwater for many miles along the Columbia has been a slowly revolving mass of red—literally scores of carloads of cull apples dumped after picking and grading—while a large by-products factory in a busy town remained idle on the river bank. Cheap as the apples were, no one cared to risk the capital necessary to operate the plant. It has been demonstrated that the market for manufactured apple products can be glutted just as disastrously as can the market for apples.

It is impracticable to extend this discussion to each specific product which may be canned or otherwise processed for later use. Enough has been said to show that the factory, as a rule, does not affect seriously the marketing problem of the grower, association manager or shipper, who has a crop of fruit or vegetables which has been grown for the general market. These industries are likely either to develop their own exclusive sources of supply or to utilize at prices which mean nothing to the producer.

[1] This practice was forbidden in 1927.

IX

HISTORY, EXTENT, AND FUTURE OF CANNING

A pioneer industry. Influence on production and marketing. Growers' contracts. Group bargaining. A bird's-eye view. Census of 1900. No reports on acreages. The tomato pack. Early oversupply. Expanding markets. Current statistics. Future of the industry. Apartment housekeeping. Form utility. Increasing competition of fresh goods. Health appeal. Canner's advantages. Possible industrial depression. Canned goods less likely to suffer than fresh.

THE foregoing discussion deals with the factory outlet as a part of the general market for fruits and vegetables. An effort has been made to show why it sometimes is, but usually is not, a factor to be considered by the grower who caters to the general market.

The picture has been outlined in an effort to help visualize present-day conditions and to indicate future trends. A wrong impression might be given if the subject were dropped without at least a fragmentary sketch of the origin, growth, and importance of these industries which use fruits or vegetables as raw products.

The production of these crops is in the aggregate tremendously in excess of what could be marketed without the factories. They have made a great producing industry possible in many sections which before had no outlets for the fresh goods, thus profoundly affecting the distribution of production, for the cannery was well in advance of the refrigerator car.

Methods of air-tight preservation without sugar were developed in France during or just after the Napoleonic wars. In America the first canning seems to have been of oysters and sea foods. Fruits followed and later vegetables on a commercial scale.

The "Great West" was exploited and settled on the strength of the tin can. The railroads which cover our prairie and great plains states were built by laborers who had few fresh fruits or vegetables, but who were supplied with tinned products in abundance. This was true of the builders of our prairie villages and early western townsites, and of the miners who prospected and exploited the Rockies from Anaconda, Montana, to Douglas, Arizona. Most of this work was done before the ice plant and the refrigerator car had begun to affect our marketing system.

INFLUENCE ON PRODUCTION AND MARKETING

The importance of home canning in the days preceding the manufacture of ice has been emphasized. It tended to stimulate the largest possible production close to our large cities. Just so far as the products of the canning factory were purchased by housekeepers who otherwise would have canned their own supplies, there was introduced the competition of a distant with a nearby producer. Just so far as a commercial cannery, located at a distance from large markets, could sell its output successfully, just so far it brought the perishable products of cheap land into indirect competition with the older market-gardening areas.

Large acreages were evidently devoted to canning crops prior to the date of our first official statistics. In so far as these regions produced crops other than sweet corn and peas, they afforded a tonnage already developed, and a potential patronage, for the refrigerator car. The shipment of green corn from a canning district to distant markets has never occurred on any large scale. Probably there is no product which suffers more deterioration in transit and none in which the time element in marketing is so important, no matter what methods of refrigeration are employed.

Green peas are only slightly less difficult than sweet corn to transport and keep fresh, and the varieties formerly sown for canning were not desirable market types.

Tomatoes and all other products grown for the canneries had a possible outlet to other markets as soon as modern handling methods came into vogue. We cannot measure the extent to which this has influenced the present geographical distribution of the factories. So far as known, the great bulk of canning crops has been grown under contract since the earliest days of the industry. The farmers who grew these crops were not market gardeners. They planted substantial acreages of some one or two products, and the factory contracted in advance for the whole crop at a fixed price. The producer need not be a salesman to deal with the factory. The question of price was and is usually fought out by the producing group as a whole before any planting is done. As the situation has developed in recent years the canning crops of a neighborhood are marketed much as union labor disposes of its services. Usually there is group bargaining followed by a contract which holds good for a year.

A BIRD'S-EYE VIEW

The canning and preserving industries have a history and literature of their own. These belong in the general realm of manufacture rather than of marketing.

The growth of the industry in its early days is obscured by the haze which surrounds such statistics as are available. The writer of the chapter on "Canning and Preserving" for the *Census of 1900* says: "Although the canning industry was established in three great commercial centers in the United States as early as 1825, it did not become of much importance until within the past quarter century."

Concerning available statistics, he says: "Although the preparation of food products from fruits and vegetables and fish was an established industry prior to 1850, no reliable statistics are available previous to 1870." He shows how in the census of 1850 the fishing industry was classed with manufactures. In 1860, fisheries appear separately. In neither 1850 nor 1860 are canned or preserved fruits or

vegetables mentioned, but in 1860 the classification "provisions" appears which may have included some or all of them.

So far as census figures show, there were only 97 establishments canning fruits or vegetables in 1870; 411 in 1880; 886 in 1890; and 1,808 in 1900. In 1909, 2,789 establishments were reported as canning and preserving fruits and vegetables; in 1919, 2,675 plants.

In 1900 the "Cost of materials used" is given as $37,527,297 and the "Value of products" as $56,668,313. We have no means of knowing what part of the "Cost of materials used" went for the purchase of fresh products for canning nor how much for containers and other supplies. There appear to be no figures on the acreage devoted to canning crops until a much later date.

We have then a great canning industry with a very unsatisfactory statistical history. Up to very recent years no one seems to have thought of it in terms of the acreage devoted to its raw products or of the income which it has afforded the growers. This is not the place to quote extensively from statistics compiled from the point of view of the trader in canned or manufactured products, but a few quotations are cited to show that the canners, like the shippers of fresh goods, have had to face problems of oversupply and have also seen their markets tremendously expanded.

THE TOMATO PACK

As early as 1883 dealers in canned tomatoes felt that the business was overdone. The *American Grocer* seems to be the best authority available on what happened at about that period. In its pamphlet on the *1885 Tomato Pack* the following figures are given for the total pack in cases of two dozen cans each:

1883	2,943,579 cases
1884	2,021,177 cases
1885	1,434,006 cases

The pamphlet states, "The above total of 1,434,006 cases of two dozen cans each represents *thirty-four million four hundred and fifty-two thousand one hundred and forty-four* cans of tomatoes, or about enough to furnish every family of five persons only three cans per annum."

The writer goes on to say that the trade at large has been burdened with an oversupply of standard packed tomatoes "for years" and welcomes the recent reduction in output. He adds, "Prices for the bulk of the canned tomatoes sold have barely covered the cost of production."

Twenty-one years later the same publication gives as the packs of 1906 and 1907, 9,074,965 cases, and 12,920,185 cases, respectively. The increase in per capita consumption and the changed attitude of the trade are indicated by this statement concerning these packs from the same *American Grocer*:

THE 1907 TOMATO PACK

A wonderful record has been made by the tomato canners of the United States, outlined in this twenty-eighth annual report of the output of canned tomatoes. . . . It proves the largest and best distributed pack on record, coming upon a market almost bare of stock before the time for the deliveries of new goods. . . . . We congratulate the packers upon a successful season; one in which prices afforded a fair profit to packers.

The tomato pack for the years 1915 to 1924 has varied from 8,469,000 cases in 1915; up to 15,882,372 in the war year of 1918; down to 4,017,000 in 1921; and stood at 12,519,000 cases for 1924.

The pack for 1924 was smaller than for 1907. In fact, the average pack for the last 10 years had been more than a million cases below the pack of 1907.

There is a decided upward trend in the production of canned peas and a slight increase in canned corn in recent years. This may be because the season within which fresh green peas and sweet corn can be had in the markets in abundance has not been materially prolonged, while fresh tomatoes are now in almost constant supply.

CURRENT STATISTICS

In 1918 the Department of Agriculture began to estimate the yields per acre and average prices per ton for several of the important canning crops, and comparable figures have been compiled annually since.

In 1922, estimates were begun of the acreage devoted to several canning crops, of the gross production in tons of raw product, and of their total value. Since this date only have we a statistical picture of the place of canning crops in the agriculture of the country. The statistical section of the *Yearbook* of the Department of Agriculture for 1924 contains these figures for the periods 1918-1924 and 1922-1924, respectively.

FUTURE OF THE INDUSTRY

Several factors enter largely into the question of the probable future of the canning industry.

The convenience and uniform quality of the canned product commend it to the consumer as against the fresh goods which she can prepare for herself. These qualities also make the canned goods competitors with some products which may be eaten fresh, especially fruits.

Fewer and fewer American families employ cooks, and increasing thousands live in apartments where every effort is made to reduce cooking to a minimum. The element of convenience is thus increasingly important to millions of consumers.

Convenience extends to family storage as well as to ease of preparation. The kitchenette can carry a can or two of each of several products in very little space and without spoilage.

The remote country store which cannot possibly handle fresh products carries an assortment in cans. Farm laborers and their families appear to be increasingly important as consumers.

The automobile promotes the picnic and prepared-lunch habits, and these habits would lose much of their present popularity if there were no canned goods to take along, or for sale at the stores in small places.

Increasing numbers of women are both wage earners and housekeepers. The can appeals to them and does much to make possible their present programs.

In short, canned fruits and vegetables have a very great "form utility" which militates in their favor as modern conditions make home cooking more and more burdensome.

On the other hand, we have the steadily increasing pressure of fresh fruits and vegetables coming from every part of the country in turn, and sometimes from the ends of the earth, competing ever more and more temptingly with those in cans. For most urban populations their "place-utility" is equal to that of the cans. Very many consumers retain a preference for foods purchased in the fresh state. Finally we have the vitamin theory, with the resultant reaction in favor of fresh over many canned or cooked fruits. It is too early to measure its ultimate effect, but we have abundant evidence that the health appeal is the strongest that an advertiser can make, and the health appeal of today is in favor of fresh fruits and vegetables over the cooked or canned as a class.

Price has become a less determining factor than it once was. Canneries can locate wherever the conditions are most favorable for production of cheap tonnages, provided even a relatively small amount of labor can be had at reasonable wages. They can utilize the crop grown at its natural season, without expense of forcing by the grower. Their goods can be well standardized. These are relatively nonperishable and can be distributed throughout the year. Their marketing operations are easily financed. All these facts tend to make possible the maintenance of relatively low prices for canned goods. The steadily increasing volume of fresh goods has been noted. Many are no longer luxuries at any season and others are luxuries for short periods only.

The buying power of the public is exceptionally high at this writing (1927) and has been high for at least four years. The situation at the moment seems to favor a further increase in the consumption of fresh goods rather than any rapid growth of the canning industry.

Industrial depression, on the other hand, may be expected to curtail the use of fresh fruits and vegetables more rapidly than the use of canned products. Such depression, resulting in lower prices for manufactures in general, would mean cheaper cans and other equipment and supplies for the factory. It would almost certainly reduce somewhat the cost of raw products and of labor. Thus the factory would be able to offer a cheaper product.

It is difficult to see how the cost of fresh goods shipped long distances could be reduced in equal ratio to the consumer. This would seem to be possible only in case transportation costs were materially lowered. Industrial workers and other wage earners finding it necessary to spend a larger part of their wages for food would buy more prudently.

Unquestionably this would result in the use of more canned and dried fruits and of canned vegetables in proportion to fresh than at present. During a large part of the year canned tomatoes are much cheaper than fresh. Canned apples are often cheaper than any fresh fruit. By cheaper we mean that the housewife can, with a given outlay, better satisfy the appetites of her family with one than with the other.

Canned and dried products can be shipped by ocean freight from coast to coast as most fresh products cannot. They can take advantage of any available rail-and-water rate, since quick transportation is not essential. Many of them can be held in common storage as the fresh goods cannot. For all these reasons any increase in general transportation costs, or in the commodity rates for fresh fruits and vegetables, would militate in favor of prepared goods in their competition with the fresh.

With these economic considerations in mind, the reader may draw his own conclusion as to the probable expansion of fruit and vegetable manufacture as compared with the further expansion in the trade in the fresh goods.

X

WHEN GOVERNMENT ENTERED THE FIELD—1913

A turning point. The Office of Markets. Prior marketing work. Milk, grain grades, drug plants, cotton standards. Fruit handling. List of publications. Crop estimating. Recent rapid changes. "History of the Bureau of Markets." Additional historical data. Georgia peach situation. Market reports demanded. Official misgivings. New personnel. First formal program. Project statement. Chief emphasis on perishables.

THE year 1913 marks a turning point in the history of the fruit and vegetable industries. That year Congress made the first appropriation for the specific purpose of starting the Department of Agriculture on a definite mission of service in the general field of marketing farm products.

The first two years of the work of the new unit, at first known as the Office of Markets, were devoted largely to research and a general survey of the situation in the marketing of each of the principal classes of farm products. Active service to the fruit and vegetable industry began in 1915. The changes since that time have been far-reaching and have amounted to a complete revolution in many phases of marketing. These changes have not been fully recognized in any text or reference book thus far published. They will be treated in succeeding chapters.

PRELIMINARY OFFICIAL WORK IN MARKETING

Prior to the organization of the Office of Markets, the Department of Agriculture had carried a few projects as far into the field of commercial activity as could be expected of its production bureaus. Its studies of the city distribution of milk were well advanced and the present approved practices were already earnestly recommended.

The studies and experiments upon which uniform grades for corn and wheat were to be based were far advanced.

The Office of Drug Plant investigations had studied the marketing of these products through its entire course.

Substantial appropriations had been made in 1910, 1911, and 1912 for work on cotton standardization. Representative gatherings of cotton merchants and manufacturers had been held in Washington to assist in determining the official grades upon which the industry was expected to unite. The Department had been authorized by Congress to prepare and sell to the trade copies of the official grades, and their commercial distribution began in 1911. They were the basis of but little actual trading, however, until after the passage of the Cotton Futures Act in 1915, when the grades were somewhat modified.

The most important activities bearing upon the marketing of fruits were the research and experimental studies in handling and transportation which were begun in 1901 and had demonstrated by 1913 the possibility of preventing much of the loss during transportation through better handling in the orchard and packing house. These studies had included the efficiency of precooling, on which a publication appeared in 1910. Absolutely nothing had been done toward determining practicable commercial grades or standards for any fruit or truck crop. At the end of this chapter is a complete list, in order of their appearance, of the publications issued by the Department prior to 1913 which had any direct bearing upon marketing fruits or vegetables. Some of these are out of print but can be found in libraries which keep files of the *Yearbook* and bound sets of the bulletins of the various bureaus.

The crop-estimating work of the Department has always had a direct influence on crop marketing. Its value is measured by its success in levelling the price curve for the year. A high degree of accuracy in estimating most of the staple crops was attained as early as 1902. But however accurate in reporting acreage, condition, or prospective yield, the

monthly crop estimate could be of no aid to the producer in actually choosing a market or determining upon a plan of distribution when the strawberries or peaches were ready to move. If he was to be served at all at this critical point in his yearly operations it was evident that new machinery must be devised and a new form of service instituted. It was assumed that authentic telegraphic reports of market prices would be a great help. No one had any definite plan or program for organizing such a service or setting up the machinery for it. Congress determined that an effort should be made to meet this need.

SUBSEQUENT RAPID CHANGES

The changes in the marketing of perishables which have been brought about through the influence of the Department of Agriculture during the last 10 years are almost as far reaching as those which followed the general manufacture of ice. The Department's influence on cotton marketing has been almost as great. It is only less pronounced but still vitally important in grain and live-stock marketing. No study of the distribution of any class of farm products is complete which does not include a just appraisal of the results flowing from the active entry of the Department into the field of economic research, experimentation, and service.

Many of the interesting and epoch-making actions and events are recorded only in typewritten memoranda and committee reports reposing in the files of the Department. They have never been printed, and no student who did not have prior personal knowledge of their existence could ever find them.

In 1920 the Bureau of Markets issued in mimeographed form a brief document giving the facts concerning the events immediately connected with the development of this official marketing unit as they appear in the various official records. On account of its historical value, its direct bearing on perishable crop marketing and because it has never been printed it is here given in full.

HISTORY OF THE BUREAU OF MARKETS

(As Traced through Official Publications)

By Caroline B. Sherman, Scientific Assistant, Bureau of Markets, U. S. Department of Agriculture

Early Interest in Marketing Problems

Organized and expressed interest in the processes of marketing farm products and the possibilities of their improvement was existent as early as 1869 when the first permanent Grange in Minnesota laid emphasis in its circulars on the importance of action in regard to certain phases of marketing.[1] Later these purposes were adopted more or less generally by the Grange, but the improvements hoped for by the followers of the Granger movement did not materialize, although some results for good were secured through state legislation regarding such matters as grain inspection, warehousing, and railway regulation.

In general, however, practically all attention to agricultural matters during the nineteenth century was directed toward production. While problems of production were engaging the attention alike of the public, the student, the agriculturist, and the economist the processes of marketing were becoming more and more complex and involved as the requirements of a rapidly growing commonwealth took them out of the hands of the producers and developed a class of men whose sole business was that of handling the products of others.

Weld[2] places the beginning of scientific study of marketing problems in 1900 when the U. S. Industrial Commission, charged by Congress with the duty of investigating "questions pertaining to immigration, to labor, to agriculture, to manufacturing, and to business, and to report to Congress" deemed the question of marketing to be of such fundamental importance that it submitted an advance report on the distribution of farm products in order to "furnish Congress and the public with concrete data, assembled from a hitherto but partially exploited field of investigation," with the suggestion that it might "form a basis for intelligent analysis, useful alike to the legislator, the farmer, and the business man."[3]

[1] Solon J. Buck, *The Granger Movement* (Cambridge, Harvard University Press, 1913), p. 46.

[2] L. D. H. Weld, *The Marketing of Farm Products* (New York, The Macmillan Company, 1917).

[3] U. S. Industrial Commission, "Report on the Distribution of Farm Products," Its Reports, Vol. 6, 1901, p. 3.

Although this report is now admitted to be a remarkable piece of work, it awakened but little interest at the time and several years elapsed before the public, or even the students of agriculture, began to realize that a thorough knowledge of the methods of distribution of agricultural products is as important, in its way, as a knowledge of methods of production, and that improvement in the one should keep pace with improvement in the other.

However, as costs of production increased, as the demands of consumption became more exacting and as competition became more active, interest on the farmer's part in marketing problems became more keen; while the more rapid rate of increase in prices as compared with wages, beginning approximately in 1907,[4] and the consequent decrease in his purchasing power stimulated in the consumer a considerable concern regarding the problem of the food supply and its costs.

Response to Increased Interest

Some of the agricultural states responded to this awakened interest on the part of the farmers. Among them Illinois, Minnesota, and Wisconsin conducted scientifically planned investigations of the methods and costs of marketing specified commodities, the results of which were made available in bulletin form. Some of the large cities, notably New York and Philadelphia, doubtless spurred by the concern among the consuming public, recognized the importance of the problem by making studies of some of its phases through mayor's offices or through commissions appointed for the purpose. The Department of Agriculture extended many of its commodity investigations which had dealt primarily with production matters to include a study of the marketing processes through which these commodities passed with a view to making recommendations for their improvement.

Federal Action

Approximately ten years after the publication of the report of the Industrial Commission the interest of the people began to crystallize into rather insistent demands for assistance in these problems. There were many and diverse opinions as to how to proceed to meet these demands and since the steps taken by the Government to that end have been recorded only bit by bit in scattered and rather inaccessible sources the purpose of this paper

[4] I. M. Rubinow, "The Recent Trend of Real Wages," *American Economic Review*, December, 1914, pp. 793-817.

is to trace these steps accurately in the form of a connected story, with such amplification and discussion as may seem necessary to relate them to the problems involved.

In response to the requests of the people the Federal Government, in 1910,[5] when making appropriations for the Department of Agriculture, authorized the Secretary "to investigate the cost of food supplies at the farm and to the consumer, and to disseminate the results of such investigation in whatever manner he may deem best," and in the appropriation act for the following year[6] this authority was expressly continued. No funds were made available for such investigations, however, and no real results were practicable. Meanwhile popular interest in this matter had not abated. Therefore, in the act making appropriations for the Department for the fiscal year 1913[7] this authority was again conferred and the following more elaborate and explicit provision was also included:

> And that the Secretary of Agriculture be and he is hereby directed to secure from the various branches of the Department having authority to investigate such matters, reports relative to systems of marketing farm products, cooperative or otherwise, in practice in various sections of the United States, and of the demand for such products in various trade centers, and shall make such recommendations to Congress relative to further investigations of these questions and the dissemination of such information as he shall deem necessary.

Accordingly in December of that year the Hon. James Wilson, Secretary of Agriculture, transmitted to Congress a comprehensive report on the subject, which was made available to the public as Report 98 of the Office of the Secretary.[8] This report was prepared by experts and specialists throughout the Department, it reviewed existing commercial systems in some detail, presented statements by managers of large firms and associations, outlined marketing investigations already undertaken in various bureaus of the Department, discussed the functions of a possible "Division of Markets" in the Department of Agriculture and made specific recommendations regarding the proposed duties and the proper

[5] U. S. Congress, *Statutes at Large,* Vol. 36, Part I, p. 440.

[6] *Ibid.,* p. 1264.

[7] *Ibid.,* Vol. 37, Part I, pp. 295 and 300.

[8] U. S. Department of Agriculture, Office of the Secretary, Report No. 98, *Systems of Marketing Farm Products and Demand for Such Products at Trade Centers,* Washington, Government, 1913.

limitations of such a division. In fact, this report might well be considered an epoch-making publication in the history of the Department of Agriculture.

It is interesting to note that from the beginning the greatest interest prevailed as to the possibilities of a comprehensive, free, market news service. Naturally the people at large were entirely uninformed regarding the complexity and magnitude of such an undertaking and had little idea of the tremendous expense involved in such a service. Report 98 frankly pointed out the possible pitfalls and probable expense incident to the development of a wide service, based on the testimony and experience of organizations which were conducting news services on selected commodities over limited areas.

At about this time numerous bills were introduced into Congress to establish a Division of Markets in the Department of Agriculture or to take similar action. The hearings and reports on these bills gave evidence of an urgent interest on the part of the public and a determination on the part of many leaders to secure legislation providing for definite results and relief.

Most of the bills were drawn with but little regard for practicability or probable expense and many of them contemplated the usurpation of legitimate powers of dealers and distributors. Others sought to introduce into America methods or machinery which were successful in various European countries but which were entirely unsuited to American ideals and conditions.

Of this proposed legislation S5294: An act to establish in the Bureau of Statistics, Department of Agriculture, a Division of Markets, made the greatest progress. It was passed by the Senate and reported favorably by the Committee on Agriculture of the House. Its scope was great and, according to a member of the Committee on Agriculture, to carry out its provisions would require an untold amount, he estimated from $200,000,000 to $1,000,000,000 a year.[9] After considerable debate and many conferences, in which many elaborate schemes were proposed and discussed, wiser counsel finally prevailed and it was decided to substitute for this bill an item in the agricultural appropriation bill for the forthcoming year 1914 under which tentative work might begin in a rather independent way. A few of the legislators realized that many preliminary investigations must be made and much preliminary work must be done before the Government could safely undertake to make far-reaching suggestions regarding so complicated a subject and with the best interests of the matter at heart urged for a conservative beginning. This was in line

[9] *Congressional Record,* Vol. 49, Part III, pp. 3009-3010, (1913).

with recommendations made by the Secretary of Agriculture and others well informed regarding the possibilities already existing for developing such work in the Department[10] and the necessity for proceeding along sound economic lines.

Accordingly the House Committee on Agriculture inserted such an item in the bill with the following explanation:[11]

> In response to many pleas made to this Committee by various organizations of citizens of this country for the establishment of a Division of Markets in the Department of Agriculture this item is inserted in the bill to enable such work to be done by the Department of Agriculture along the lines indicated that Congress may be able to decide as to the feasibility and desirability of establishing at some future time the Division of Markets as requested.

This item passed the House and appeared in the bill as referred to the Senate Committee on Agriculture and Forestry, but the Senate Committee amended the item and transferred it to the Bureau of Statistics.[12] The Congressional Record[13] sets forth in detail the various proposed amendments. The Senate concurred in the recommendations of its committee and the bill was sent to the House amended in that form. But the Conference Committee refused to accept the changes of the Senate, with the result that the Senate receded from both of its amendments[14] and the agricultural appropriation bill for 1914 as it was finally passed contained the following item:[15]

> To enable the Secretary of Agriculture to acquire and to diffuse among the people of the United States useful information on subjects connected with the marketing and distributing of farm products, and for the employment of persons and means necessary in the city of Washington and elsewhere, there is hereby appropriated the sum of $50,000, of which sum $10,000 shall be immediately available.

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[10] U. S. Congress, 62nd. Committee on Agriculture. *Hearings . . . on the Estimates of Appropriations,* for the fiscal year ending June 30, 1913, pp. 254-257; *Ibid.,* for the fiscal year ending June 30, 1914, pp. 300-301.

[11] U. S. Congress. *House Reports,* Serial 6334, Vol. 1. H. R. Report, No. 1348, January 20, 1913.

[12] U. S. Congress, *Senate Reports,* Serial 6330, Vol. 1, Calendar 1141, Report No. 1288, February 21, 1913.

[13] *Congressional Record,* Vol. 49, Part V, pp. 4139-4140 (1913).

[14] *Ibid.,* p. 4650 (1913).

[15] U. S. Congress, *Statutes at Large,* Vol. 37, Part I, p. 854.

This item follows the wording of the statute creating the Department of Agriculture and is practically as it was drafted by the House Committee except that that Committee did not make any sum immediately available. This bill was approved by the retiring President on March 4, 1913. Thus it happens that the authority for the work conducted by the Bureau of Markets was originally conveyed by a regular agricultural appropriation act and not by any organic act as is popularly supposed.

This enactment was directly in line with the plans of the new Secretary of Agriculture, the Hon. D. F. Houston, who brought to the Department a decided economic and social viewpoint. Immediate steps were taken to carry out this duty in the most effective way possible. On March 27 a conference of Department workers was held "for the purpose of outlining the work of the various Bureaus in connection with the marketing and distribution of farm products, to report results already accomplished, and to discuss plans for the further development of these investigations in carrying into effect the provision in the agricultural appropriation bill for the fiscal year 1914 setting aside $50,000 for this purpose."[16]

The report of this conference is of value in that it gives in greater detail than does Report 98 the marketing work then under way in the Department, with names, dates and some illuminating comments by the workers involved. It was shown that work had been under way for several years relating to the question of harvesting, transporting, storing and marketing many kinds of fruit and truck crops; of grading, transporting and handling cereals; of grading and marketing cotton; and that studies were being made of market methods and conditions surrounding the transportation and marketing of eggs, milk, butter and other animal products. The subject of cooperation among farmers had also received considerable attention.

On April 29 a conference of some of the leading experts and students in the field of marketing was held at the Department to "secure the views of experts and others in the problem of organizing and conducting a marketing service in the Department of Agriculture."[17] The meeting was presided over by the Secretary of Agriculture, "who spoke briefly of the importance and com-

[16] U. S. Department of Agriculture, *Report of the Conference on the Marketing and Distribution of Farm Products,* 1913. (The typewritten copy of this report, owned by the library service of the U. S. Department of Agriculture, is probably the only accessible copy.)

[17] *Ibid.,* Office of the Secretary, *Organization and Conduct of a Market Service in the Department of Agriculture,* discussed at a Conference held at the Department on April 29, 1913. (Unnumbered publication 1913).

plexity of the task of carrying out the provisions of the act, the widespread interest in the subject, and the meagerness and primitiveness of the knowledge regarding it, and the likelihood of a considerable length of time elapsing before it can be studied adequately and definite conclusions reached." The Secretary outlined the four divisions of the subject which he thought were suggested by the provisions of the act. The study of organized marketing, a market news service, a study of methods and cost of distribution, and transportation problems. Recognized experts who had been invited to attend presented suggestions which tended to emphasize and amplify these divisions.

Creation of the Office of Markets

On May 16, 1913, less than ten weeks after the appropriation was made, the Office of Markets was created by the Secretary of Agriculture in the belief that the most effective way to carry out the work authorized by Congress was through an Office formed expressly for the purpose of acquiring and diffusing information on marketing. The public record of the creation of the Office is contained in a project statement covering the proposed work, approved in the Office of the Secretary, and in the appointment of Mr. Charles J. Brand, who had recently developed work relating to the cooperative handling and marketing of cotton in the Department, as Chief of the Office of Markets.[18] The entire organization and development of this new work was under Mr. Brand's direction and leadership until his resignation from the Department of Agriculture in 1919.

By creating an Office for this work rather than a Division in a Bureau, the Chief was made directly and solely responsible to the Secretary of Agriculture, and since the organization of an Office as that term is used in the Department of Agriculture is less formal than that of a Bureau, the preliminary and early work was not hampered by tradition and custom. Also the Office form of organization is more flexible, more susceptible to readjustments, and therefore was well adapted for the trying-out of this important line of work.

With the appropriation then available organization work was begun immediately. A definite program of work was evolved along the general lines previously considered, but outlining seven distinct lines of attacking the problem in hand as follows: coop-

[18] Apparently there is no printed official record of the creation of the Office of Markets, but both of these documents, in typewritten form, are on file in the Department of Agriculture and in the Bureau of Markets.

erative marketing; surveys of supply and demand; study of methods and cost of distribution; study of transportation problems; investigation of practicability, methods and costs of a general news service; cotton handling and marketing investigations. The last item provided for continuing work already well advanced in the Department.

As had been anticipated, considerable time was required to find suitable men for this work, since practical knowledge and experience as well as academic and economic training were needed. The problems to be studied were admittedly complex, the prevalence of erroneous ideas regarding practicable methods of procedure was recognized and it seemed desirable that progress be not unduly hastened,[19] but by the beginning of the calendar year 1914 definite work along promising lines was well under way.

The first annual report of the Chief[20] indicated some rather tangible results notably in the work with the cooperative cotton associations, and in the amount of valuable information which had been gathered regarding other cooperative marketing activities among farmers; regarding the extent and activities of producing areas of specified products, shipments, destinations, and prices at terminal markets; city marketing conditions; the possibilities of marketing farm products by parcel post; and similar subjects. This information was being made available to the public through correspondence as rapidly as practicable and three bulletins and various short articles had been published, while other bulletins were in press.

Official Development into the Bureau of Markets

The Office of Markets was first officially recognized by Congress in the agricultural appropriation act for the fiscal year 1915,[21] when $200,000, was appropriated specifically for its use, a sum four times as great as the amount set aside by Congress for marketing work the previous year.

At the period when the Office of Markets was created great interest prevailed in the country with reference to the subject of improvement of rural credit, communication and social and educational activities. The General Education Board volunteered

[19] U. S. Congress, 63rd. Committee on Agriculture, *Hearings . . . on a Bill Making Appropriations for the Department of Agriculture,* for the fiscal year . . . 1915. Testimony of Secretary of Agriculture, pp. 119-123 (1914).

[20] U. S. Department of Agriculture, *Annual Reports . . .* for the year ended June 30, 1914, pp. 317-327 (1914).

[21] U. S. Congress. *Statutes at Large,* Vol. 38, Part I, p. 440.

to contribute a sum of money to be expended under the direction of the Secretary of Agriculture for this purpose. This offer was accepted and this work was inaugurated under the name of the Rural Organization Service, in a working unit even more flexible in form than an Office and merely affiliated with the Department of Agriculture.

The Department had under contemplation at this time a plan for the reorganization of its work into broad lines or groups according to service rendered. Under this scheme, organization for marketing purposes was tentatively classified with many other lines of work in the rural organization service. This plan was outlined in the report of the House Committee on Agriculture accompanying the agricultural appropriation bill for 1915, but was never put into effect. On the contrary, Congress provided in this act for the financing of the rural organization activities already under way in a special item of $40,000 in the belief that it was inexpedient for the Government to disburse funds provided by private individuals or corporations.[22] Following this action the rural organization work was made a part of the Office of Markets to which the combined title of Office of Markets and Rural Organization was then assigned by the Secretary of Agriculture.

During this same year the cotton futures act, approved by the President,[23] and carrying with it a continuing appropriation of $150,000, was entrusted for administration to this Office under the direction of the Secretary of Agriculture. Thus the total appropriation over which the Office had authority in 1915 was $390,000, and this year marked the beginning of the regulatory powers which were destined to become such an important part of the work. It was also during this year that an experimental market news service on certain fruits and vegetables was actually put into successful operation based on the investigations conducted by the Office. This service was enthusiastically received by growers, shippers and the produce trade.

The act making appropriations for the Department of Agriculture for the fiscal year ending June 30, 1916,[24] gave legal sanction to the combination of the two lines of work by an item forming its own section, appropriating $484,050 specifically for the Office of Markets and Rural Organization.

Hearings conducted by the agricultural committees in Congress and many other important official and nonofficial publica-

[22] *Congressional Record,* Vol. 51, Part V, pp. 4551-4555 (1914).

[23] U. S. Congress, *Statutes at Large,* Vol. 38, Part I, p. 693.

[24] *Ibid.,* p. 1111.

tions during this period give evidence of great public interest in the problems of marketing. The agricultural press in general welcomed the work of the new Office and farmers and consumers made increasing demands on its time and funds and through correspondence and testimony gave hearty support to its aims, efforts, and rapidly increasing work.

The subsequent development of the work may be said to have been accomplished in four ways: by the normal but rapid working out of well laid plans, cordially received and supported by the people; by the entrusting to it of the administration of certain Federal agricultural laws of an economic character; by transfer to it of related lines of work previously conducted in other Bureaus; and by the swift development of work of various kinds to meet emergency demands arising in connection with the war.

The agricultural appropriation act for the fiscal year 1917 carried as Parts B and C the U. S. grain standards act and the U. S. warehouse act, the whole being signed by the President on August 11, 1916.[25] On August 31 the U. S. standard container act was approved.[26] All of these laws were assigned to the Office of Markets and Rural Organization for administration and its work was greatly increased thereby. The conscientious exercise of the police powers conferred by these laws, particularly the one relating to grain, brought with it some measure of unpopularity in certain quarters that were adversely affected which served only to increase the difficulties of the Office and not to lessen its endeavors. The grain standards act carried a continuing appropriation of $250,000, the warehouse act $50,000, while the regular appropriation for the Office for this fiscal year was $872,590. Thus the total amount for the year to be expended under the direction of the Office was $1,172,590. The standard container act was administered with funds allotted from the regular appropriation.

During these years certain lines of work which had been begun in other Bureaus of the Department of Agriculture, but which were along marketing lines, were transferred to the Office of Markets and Rural Organization. These included investigations relating to cotton standards and testing, handling and transportation of grain and determination of grain standards, and preservation of fruits and vegetables, all of which were transferred from the Bureau of Plant Industry, and each of which required the entire time of a considerable staff of workers. Cooperative relations in regard to work on transportation of fish and poultry

[25] *Ibid.*, Vol. 39, Part I, p. 482.

[26] *Ibid.*, p. 673.

were developed with the Bureau of Chemistry and working contacts with other Bureaus were strengthened.

The Office of Markets and Rural Organization formally became a Bureau through the act making appropriations for the Department of Agriculture for the fiscal year ending June 30, 1918,[27] approved March 4, 1917, which carried an appropriation of $1,718,575 for the Bureau of Markets under that name. The magnitude of the work at that time may be indicated by the size of the appropriations expended under its direction. Besides the sum carried in the regular appropriation bill the funds under control of the Bureau for war emergency work amounted to $2,522,000, and were further supplemented by a sum of $10,000,000 for the purchase and distribution of nitrate of soda, making a total of $14,204,575.

The annual report of the Chief of the Bureau[28] for that year shows the regular activities to have been divided into three large groups investigational work, service work and regulatory work, with many specific projects being conducted under each group. Besides the four Federal acts administered by the Bureau, special work relating to the war was being prosecuted vigorously under two other acts besides the one making the annual appropriations. Some of the undertakings in the war work were very large. Sixty-six formal publications were issued during the year besides the regular numbers of two emergency periodicals and several bulletins in cooperation with the states. The number of employees in 1918 reached 2,289, and there were 108 branch offices of a permanent nature. Thus in 1918, just five years after the beginning of its work, the Bureau of Markets took its place among the largest Bureaus of the Department of Agriculture.

Conclusion

The present work of the Bureau of Markets, under the direction of Mr. George Livingston, Chief, is so well known and descriptions are so readily available in print that no attempt will be made to outline it here. It is sufficient to point out that signal progress has been made along such fundamental lines as standardization, collection, and dissemination of market information on a nation-wide basis, improvement in preparation of farm products for market, improvement of transportation conditions including methods of loading and refrigerator car service, and de-

[27] *Ibid.*, p. 1162.

[28] U. S. Department of Agriculture, *Annual Reports*—for the year ended June 30, 1918, pp. 451-489.

termination and promulgation of the basic principles of successful cooperation. Above all, the Bureau of Markets has succeeded in convincing all thoughtful persons and, at least to a perceptible degree, the people at large, that careful investigation is basic to any far-reaching improvement in our complicated market conditions. The public is gradually coming to realize that no one method, no one plan, no one device, can bring about revolutionary improvement in the order of things, but that by utilizing efficiently that part of each method and procedure that promises best results under the given conditions an economy may be effected here, an abuse may be corrected there, a marked improvement may be accomplished elsewhere and thus through careful study and constant endeavor may be brought about that wise distribution of our farm products that will bring a more stable profit to the farmer and a more reasonable price to the consumer.

The writer had a rather close personal and official contact with some of the events leading to the creation of the Office of Markets and may here record some details which do not appear in any formal official record.

It was generally understood that Senator Hoke Smith of Georgia was the most active and insistent proponent of the Senate Bill 5294 which passed the Senate in the session of 1912-13, as described in the "History" just quoted, and which would have created a division of markets in the Bureau of Statistics. The Senator's interest was understood to result from the recent disastrous experience of the peach growers of Georgia in attempting to market within a few weeks one of the largest crops which had ever been produced.

There was no effective organization among the producers and almost every known difficulty had arisen. New York and a few other markets had been glutted. Peaches had sold for less than freight charges. The railroads were alleged to have failed to provide cars promptly. Losses in transit were heavy. To make matters worse came reports that satisfactory prices had prevailed in other markets when those in the largest eastern cities had been glutted.

Senator Smith was determined that the Department should try to institute some sort of market reporting service

to aid in this situation and if possible to prevent its recurrence. Thus the interests of the shippers of perishable fruits were the moving forces behind this Senate action which resulted in the launching of a far more comprehensive undertaking with far-reaching influence upon the marketing of all farm products.

DISASTERS PREDICTED

Official conservatism looked with grave misgivings upon undertaking any such service as Senator Smith hoped to see launched. Important produce firms voiced similar fears. It was argued that the Department could not maintain the constant touch with the shipper, which would be necessary if he was to be given any useful guidance in distributing a peach crop.

It was predicted that if on Tuesday a report was issued showing prices in Pittsburgh distinctly higher than in cities farther east, all the shippers would bill their cars to Pittsburgh all that week and there would be no way to stop it until that market was overloaded and the price went to smash. To record market history up to the minute and to inform the public more promptly than the newspapers could do so was out of harmony with accepted ideas of official procedure. The fear was honestly held that such an activity would do more harm than good and would injure rather than enhance the reputation of the Department.

This point of view was not unnatural for investigators who were accustomed to regard a full crop year as the time unit in their work and whose conclusions were always reached and analyzed in the light of a season's experience before they were given to the public.

Contrast this gloomy forecast with the facts today, when, in addition to every means available through the press, the mimeographed report, the mails, and an extensive leased wire system, every farmer in the country can get the official market reports over the radio twice a day.

NEW BOTTLES FOR NEW WINE

It is an interesting fact, that, from the day the first experimental market report was sent by telegraph from a representative of the Office of Markets in New York City to another in the strawberry district in Louisiana, to the present, only two men have ever been responsibly connected with the official market news service who had held any executive, technical, or scientific position in the Department of Agriculture prior to 1913.

Upon the passage of the appropriation bill for 1913-1914 carrying the marketing item quoted in the foregoing "History," the Secretary of Agriculture was confronted with the question as to how it should be spent. There were in the Department, as we have shown, several promising lines of work already bordering on the field of marketing. The cotton standardization work had been divided in the spring of 1912 and a new project launched under the title of Cooperative Cotton Handling and Marketing. This new project had already attracted attention and was showing promising results at the end of its first year. It was seriously proposed that the $50,000 be divided among the units which were already doing marketing work. None of them were doing anything which even looked toward a market reporting service for perishables, however, and that was the very thing which some of the earnest supporters of the item had most at heart.

The Hon. David M. Houston, who had just become Secretary of Agriculture, inclined, as has been shown, toward the organization of a new unit. The report of the committee of departmental workers, which he had appointed to consider the subject, did not lay down a program sufficiently definite to satisfy his ideas.

At the suggestion of the Assistant Secretary of Agriculture, Dr. B. T. Galloway, Mr. Charles J. Brand, then in charge of the Cotton Handling and Marketing Project, and who was also deeply interested in the practical problems of

fruit marketing, was invited to submit a plan of organization and an outline of work for the new unit. This was done within less than 24 hours. The plans were put in the form of a "project statement" dated May 15, 1913, in harmony with the prevailing type of activity-organization in the Department. They were approved by Dr. Galloway and Mr. Brand was named Chief of the Office of Markets on May 16, 1913, as shown in the preceding "History."

THE FIRST FORMAL PROGRAM

Governmental activities have, since 1913, produced more profound changes in the marketing of fruits and vegetables than have all other current influences combined. It is important, then, that the student of marketing should see the problem as it appeared to those whose subsequent work has resulted in the establishment of the present official checks and services to the industry. Those who drew up the following plan remained in charge for six years.

The original "Project Statement" of the Office of Markets is a typed document of 5½ pages which has never been printed. It is here reproduced, complete in its outline, with omissions of text indicated, but with every statement and program which affects the fruit and vegetable industry given in full.

NAME: Office of Markets: Marketing Farm Products.

CHIEF OF OFFICE: Charles J. Brand.

HEADQUARTERS: Washington, D. C.

OBJECTS:

To investigate present systems of handling, marketing and utilizing farm products; to aid producers, consumers and manufacturers in cooperation with competent state and other agencies in devising and maintaining economic and efficient systems of storage, transportation, marketing and utilization; to devise methods of reducing or eliminating expense and waste in transportation, marketing and manufacture in the hope of realizing slightly better prices for the producer and somewhat

lesser costs or better products for the consumer; to assist so far as lies within the authority of the Department of Agriculture in the organization and extension of cooperative production, marketing, distribution and buying.

LEGAL AUTHORITY: Agricultural Appropriation Act, fiscal year 1914.

. . . . . .

(This item appears in the foregoing "History.")

DATE SUGGESTED: The work covered by this project is the natural outgrowth of the ever-growing interest on the part of the whole public in the increased cost of living, which has proved such a serious problem during the past decade or more. The need for such work was first recognized in the act making appropriations for the fiscal year 1911, when the following language was added to the Agricultural Appropriation Bill:

MISCELLANEOUS

> And the Secretary of Agriculture is hereby authorized to investigate the cost of food supplies at the farm and to the consumer, and to disseminate the results of such investigation in whatever manner he deem best; this authorization to be effective upon the approval of this Act.

This specific project is the outgrowth of the interest of the present Secretary of Agriculture and Assistant Secretary in the problems of agricultural economics.

ORGANIZATION:

Washington Force:
- Chief of Office
- Assistant
- Executive Clerk
- Librarian and Indexer
- Stenographer
- Clerk
- Typewriter

Field Force:
- Specialist in Cooperative Organization
- Specialist in Transportation
- Specialist in Marketing Perishable Products
- Officer in Charge of Market Surveys

Assistant in Cooperative Organization Accounting
Assistant in Cotton Seed Marketing and Utilization.

METHODS OF PROCEDURE:

There is no one principle, the correct application of which will cure our present difficulties in distribution and marketing. The problem as a whole is one of articulation. The farmer producer must be brought into more direct touch with the manufacturer in the case of industrial products or with the ultimate consumer in the case of food products. Furthermore, agricultural production must be more carefully adjusted to market demands than is now the case. It is unlikely that immediate results in the way of large money returns can be realized from such work. Certain specific and almost elementary things can be taken up at once which may be expected to produce immediate results. Beyond this, the facts will first have to be determined and we must then proceed with these as a basis.

The following sub-projects indicate the direction the work is likely to take.

A. THE STUDY AND PROMULGATION OF MARKET GRADES AND STANDARDS

A common language for both producer and consumer is the first essential to a satisfactory contact between them. When a man orders something from the country producer he must know what he is going to get. A study of distinctive terms which can be accurately understood as applying to a given quantity and quality of produce. These should be based on present trade practices in the handling of the various commodities and on the requirements of modern consumers. This might require legislation as to size and weight of packages, their labeling, designations, brands, and descriptions. It is also desirable that if definite legislation establishing a bureau or office is enacted that authority should be given within suitable executive limits to establish rules covering all these points relating to specific products that may move in interstate trade. This work in common with many other activities of the Office of Markets will be carried on in cooperation with the states.

B. COOPERATIVE MARKETING

This sub-project will include, (1) Promotion of marketing organizations and consumers' leagues, and assistance to existing organizations; (2) A compilation of laws, state and national, affecting organized production.

C. Surveys of Supply and Demand and Organization of Consumers

This work will include surveys of consumption and market possibilities in definite localities and education and organization work among consumers, (1) To establish direct dealing with organized producers, (2) To extend the use of products now wasted or which can be brought to the consumer more cheaply by direct dealing—a part of this work would include the development of larger markets for certain classes of commodities by publicity and education, (3) Cooperation among consumers for the purpose of cheapening terminal market distribution, (4) Study of methods by which consumers would buy in larger quantity, including education of architects, and builders in cellar construction, and so forth.

D. Study of Methods and Cost of Distribution

This will include, (1) Study of existing cooperative organizations for marketing farm products together with a determination of cost and general advantages and disadvantages of this method; (2) An investigation of present commercial methods of distribution, prices received by the producer, cost of transportation, storage, and so forth, changes of ownership or possession between producer and consumer, accumulated charges, costs, and ultimate prices and profits at each step in the process by individual products or classes of products. This would give a true measure of the benefits to be obtained by the general introduction of the cooperative method.

E. Study of Transportation Problems and Assistance to Producing Organizations in Securing Suitable Transportation Facilities

This section, through its transportation expert, would assist the producer, after the determination of facts, in securing necessary or desirable concessions directly from railroads and in cases of unjust discrimination intervening with the Interstate Commerce Commission in their behalf, through the office of the solicitor. It would also conduct investigations along any promising lines relating to transportation.

F. Market News Service for Perishable Products

An investigation relating to the practicability, methods, and cost of conducting a general market news service. Such a service, if shown by investigation to be feasible, might perform the following functions: collection and distribution daily of

information relating to the condition of supply and demand in the leading market centers; supplies en route, their destination, and the probable date of arrival; progress of planting and areas planted, collected and distributed weekly during the planting season; information concerning condition of growing crops, collected and distributed weekly during the growing season; information concerning the relation of supply to demand, disseminated as occasion demands. Certain it seems that an investigation of the practicability of such a service should be conducted and that in some rather modest way much good might be done. There are many definite and useful lines of work that can be undertaken, but it would be unfortunate to expect too great or far-reaching results immediately from work of this character.

G. Cotton Handling and Marketing Investigations

. . . . . .

Departmental and State Cooperation: Warehouse, market, commission, weights and measures, and commission men legislation is pending in New York, Texas, Wisconsin, Minnesota, South Carolina, and other states. It will be the purpose of the Office of Markets to work in close cooperation with the state agencies so far as it can be done effectively. Work involving transportation and marketing of poultry and eggs, meat and dairy products, and transportation and storage of citrous and other fruits, will all be carried on in cooperation with those bureaus and offices of the Department already engaged in these lines.

It will be the purpose in all work done to so shape matters in giving help within states that communities will bear most of their own burdens all of the time and as soon as possible handle the business wholly without assistance.

Endorsed:

Approved, B. T. Galloway, May 16, 1913.

The interests of the producers of fruits and vegetables stand out prominently in this project. Most of the cooperative marketing, aside from that of cooperative grain elevators, was being done by them. The critical problems of transportation were theirs. Their need of standardization was outstanding and from the first this was a major study.

"F," under Procedure, outlines the possibility of a Mar-

ket News Service as then conceived. This activity moved forward rapidly to proportions not then dreamed of.

CHIEF EMPHASIS ON PERISHABLES

Thus it came about that the new unit placed its chief emphasis from the very first on the problems presented by the marketing of perishables. But no one could study the situation as it then existed without seeing that the most pressing problems, the greatest lack of intelligent action, the most unfortunate misunderstanding of what actually happened in the marketing process, the most ruinous losses, often preventable, the greatest opportunities for fraud and imposition, the greatest confusion of counsel among producers, all centered in the fruit and vegetable industries.

Such are the facts surrounding the birth of the Office of Markets, which later became the Office of Markets and Rural Organization, still later the Bureau of Markets, now an integral and major part of the Bureau of Agricultural Economics. In the years since 1913 many men in widely separated states have claimed to have originated the idea of such a Bureau and each has given the time, place, and circumstance of the launching of the scheme. This merely shows the insistence of the need and its widespread recognition, in every case by someone interested in shipping fruit or truck.

Let us attempt now to study a cross section of the industry as the investigators of the Office of Markets found it in 1913.

Publications Issued by the Department of Agriculture Prior to 1913, Bearing upon Marketing Fruits or Vegetables.

1. Taylor, W. A. "The Influence of Refrigeration on the Fruit Industry." (In U. S. Department of Agriculture *Yearbook*, 1900, pp. 561-580.)

2. Powell, G. H., and Fulton, S. H. *Cold Storage, with Special Reference to the Pear and the Peach.* 1903. 28 pages. (U. S. Department of Agriculture, Bureau of Plant Industry, Bulletin 40.)

3. Powell, G. H., and Fulton, S. H. *The Apple in Cold Storage*, 1903. 66 pages. (U. S. Department Agriculture, Bureau of Plant Industry. Bulletin 48.)

4. Powell, G. H. "Relation of Cold Storage to Commercial Apple Culture." (In U. S. Department Agriculture *Yearbook*, 1903, pp. 225-233; also *Yearbook Separate*, 317.)

5. Rolfs, P. H. *The Avocado in Florida, Its Propagation, Cultivation, and Marketing*, 1904, 36 pages. (U. S. Department of Agriculture, Bureau of Plant Industry, Bulletin 61.)

6. Powell, G. H. "The Handling of Fruit for Transportation." (In U. S. Department of Agriculture *Yearbook*, 1905, pp. 349-362; also *Yearbook Separate*, 387.)

7. Fulton, S. H. *The Cold Storage of Small Fruits*, 1907. (U. S. Department of Agriculture, Bureau of Plant Industry, Bulletin 108.)

8. Tenny, L. S., assisted by Hosford, G. W., and White, H. M. *The Decay of Florida Oranges While in Transit and on the Market*, 1908, 8 pages. (U. S. Department of Agriculture, Bureau of Plant Industry. Circular 19.)

9. Powell, G. H., and Others. *The Decay of Oranges While in Transit from California*, 1908, 79 pages. (U. S. Department of Agriculture, Bureau of Plant Industry, Bulletin 123.)

10. Stubenrauch, A. V. *Factors Affecting the Keeping Quality of Table Grapes While in Transit and in Storage*, 1908, 3 pages, (U. S. Department of Agriculture, Bureau of Plant Industry. Miscellaneous Publication 1392.)

11. True, R. H., and Sievers, A. F. *Some Factors Affecting the Keeping Qualities of American Lemons*, 1909, 17 pages. (U. S. Department of Agriculture, Bureau of Plant Industry, Circular 26.)

12. Harter, L. L. *The Decay of Cabbage in Storage: Its Cause and Prevention*, 1909, 8 pages. (U. S. Department of Agriculture, Bureau of Plant Industry, Circular 39.)

13. Stubenrauch, A. V. "The Handling of Deciduous Fruits on the Pacific Coast." (In U. S. Department of Agriculture *Yearbook*, 1909, pp. 365-374; also *Yearbook Separate*, 520.)

14. Powell, G. H. "Cooperation in the Handling and Marketing of Fruit." (In U. S. Department of Agriculture *Yearbook*, 1910, pp. 391-406; also *Yearbook Separate*, 546.)

15. Stubenrauch, A. V. "The Precooling of Fruit." (In U. S. Department of Agriculture *Yearbook*, 1910, pp. 437-448; also *Yearbook Separate* 550.)

16. Stubenrauch, A. V. *The Relation of Handling to Decay in California Navel Oranges: Season of 1910-11.* (U. S. Department of Agriculture, Bureau of Plant Industry, Miscellaneous Publication 676) 1911.

17. Beattie, W. R. *The Storage and Marketing of Sweet Potatoes*, 1912, 16 pages. (U. S. Department of Agriculture, Farmers' Bulletin 520.)

18. Corbett, L. C. "A Successful Method of Marketing Vegetable Products." (In U. S. Department of Agriculture *Yearbook*, 1912, pp. 353-362; also *Yearbook Separate*, 597.)

XI

THE STATUS OF THE INDUSTRY IN 1913

Weld's forecast. Physical equipment. Cars. Terminal facilities and needs. Car service. Regional development by railroads. In Arkansas, Texas, Georgia. Storage. Packing houses and grading equipment. Short packages. Cooperative organization. Failures and successes. Examples. Status of standardization. Meaningless specifications. "Good commercial deliveries." Diversity in grades. Local jealousies. Current information. Quotations, private, newspaper, trade. Shipments unrecorded. Distribution. Legal difficulties. Lack of statistics. Of market history. State legislation. Transitions in progress. The end of an era.

WELD, writing in 1915, refers to the beginning of systematic marketing research by the new Office of Markets and forecasts that the most important developments in the near future are likely to be connected with its activities.[1] He seems to have foreseen its development as a fact-finding but not as a service-rendering agency. As the first nation-wide study of fruit and vegetable marketing was made in 1913-15 it is important to record what was found.

PHYSICAL EQUIPMENT—CARS

There was a permanent, nation-wide supply of ice, and all main railway lines were provided with icing stations at the necessary intervals. The movement of perishables was nation-wide and on a large scale. The best refrigerator cars then building closely approached in efficiency the best of today. There were, however, a vast number which were refrigerators in little more than in name. One of the crying needs of the industry was the retirement or rebuilding of much of this early and inefficient equipment. No railroad published the specifications on which all its refrigerator

[1] L. D. H. Weld, *The Marketing of Farm Products*, 1916.

cars had been built. No investigator with access to the facts dared to print this information. Had this been done, every shipper when ordering cars for loading would have specified one of the best construction and there were not enough of these to carry any considerable part of the tonnage which must be moved.

The Railroad Administration was made acquainted with the facts during the World War, and the roads were started on a program of efficient construction which has well nigh revolutionized the average efficiency of the cars serving many important districts. But in 1913 heavy losses were being suffered through the use of cars wholly unfit to maintain low temperatures during long hauls in hot weather. They were equally incapable of giving suitable protection against low temperatures during winter trips.

TERMINAL FACILITIES AND NEEDS

These were already recognized as inadequate. Broadly speaking, railway terminals were not, and are not today, designed or specially equipped to handle the volume of perishables which must now pass through them. The evils of embargoes and of congestion in the yards were already causing complaint. It must be admitted that this situation has grown worse rather than better during the last 10 years. The carriers now generally recognize the terminal problem as the most critical connected with the handling of these commodities. There is more difficulty and delay in getting cars of perishables into a large terminal, unloaded, and the empties started toward producing territory, than in any other part of the operation.

On the main transcontinental lines the average full train of refrigerator cars in 1913 was about 40. In 1925 it was estimated at 60. There has been no corresponding improvement in methods of handling the cars through the yards. The crucial question today is not how to move the goods over the rails with speed and safety but how to move them through yards and terminals.

CAR SERVICE

Railroad service was not as efficient in 1913-15 as now because refrigerator equipment was not pooled by the roads so freely and efficiently as it is today. The lessons of the World War and the enforced cooperation put into effect by the Railroad Administration were yet to come.

Today the Car Service Division of the American Railway Association looks after the interests of each shipping region in turn. Prior to the World War there was no such organization, and shippers on certain roads were often at a great disadvantage in securing cars as compared with those on another line serving the same region.

The transcontinental running time for fruit trains in 1913 was practically the same as today.

REGIONAL DEVELOPMENT

Certain roads were giving special service to districts developed on their own lines. For example, the St. Louis and San Francisco Railroad was running solid trains of early potatoes from Ft. Smith, Arkansas, to Chicago on practically a passenger schedule. This did not require refrigerator equipment. The early potato movement from that latitude was and is handled largely in cattle cars. The potatoes are sacked and so loaded as to allow the greatest possible circulation of air.

The International and Great Northern Railway, connecting with the other so-called Gould Lines farther north, was giving special solid-train service to the Texas Bermuda onion growers of the Laredo district. This made St. Louis the great distributing point for this crop.

In the East the Georgia watermelon crop had already been developed to the point where it filled thousands of cars per year and was the object of the special solicitude of certain roads serving the producing district.

Some writers have been misled into listing the watermelon

movement as one of the results of the introduction of refrigeration. Watermelons, however, are not refrigerated until they reach the retailer or the consumer. They are shipped preferably in cattle cars with the openings slatted up to the height of the load to prevent thievery by "plugging." Otherwise, they move in ventilated box cars. The railroads were well supplied with such equipment, and the watermelon industry was a relatively large business reaching all northern markets before the first refrigerator car operated in south Georgia.

STORAGE

Mechanical refrigeration and cold storage had reached practically their present efficiency. There was an insistent demand for more cold storage plants near the points of production, especially near apple regions, and considerable such building has since been done. Although the available cold storage space was very large and the gross amount of fruits and vegetables stored for varying periods was enormous, there were considerable losses in storage because of the lack of accurate knowledge of the behavior of many products under various temperatures. In other words, the physical equipment of the industry was, in this respect, ahead of its knowledge of plant pathology.

PACKING HOUSES

Packing houses and packing-house machinery had been built on a large scale in both apple and citrous fruit growing districts. Improvements in the mechanical manipulation of these products within the last 14 years have been in matters of detail rather than by the introduction of any radical changes. The machines which were designed to aid in putting out a standard grade or pack of fruit were fairly satisfactory. The master minds of the industry were still far apart as to what the specifications for a practical, nation-wide set of commercial grades should be. Here again the

mechanical equipment was ahead of the technical knowledge of the men who were using it.

PACKAGES

Fruit and vegetable packages were of every conceivable type, size, and variety. Many regions had a fairly well standardized package for some one commodity, such as the California orange box and the Cummer crate for Texas onions. The growers in the Pacific Northwest were just getting together on the present specifications of the apple box. There was a fairly well recognized apple barrel in the East.

But for every well-known package there was usually a corresponding "short" package, and if this short package gained any measure of popularity, as it usually did, some one put out a shorter short package until the result was total confusion.

Speaking broadly the package situation in 1913-15 was about as bad as it well could be. The whole situation tended to put a premium on deception and a short measure. In fact, there was no general recognition of the desirability of package standardization for the country as a whole. There were many who seemed to favor distinctive packages as well as separate grade rules for every locality.

THE STATUS OF COOPERATIVE ORGANIZATION

Literally hundreds of cooperative enterprises had been launched among the growers of fruits and vegetables prior to 1915. There were far more dead than living at that time. Many had never functioned, having died as soon as the enthusiasm of organizing had waned. Others had gone further, spent lavishly, incurred obligations and failed, bringing loss and humiliation to their members. Some of these experiences had been so disastrous that during all the succeeding years there has been no further effort at coopera-

tive organization in the locality. The experience of the onion growers of Laredo, Texas, is an outstanding example.

The California Fruit Growers' Exchange, devoted wholly to the marketing of citrous fruits, was the one notable example of successful cooperative marketing. Its success was based primarily upon the fact that it had almost an all-the-year product to distribute, as no other fruit or vegetable group had, and to the fact that its membership was confined to a limited territory, yet dominated the national supply of both oranges and lemons during many months of the year.

Grievous errors were and are made by enthusiasts who assume that it is necessary only to duplicate the machinery and methods of this exchange to duplicate its success. They lose sight of the basic conditions which have made it possible for this combination of machinery and method to work successfully in that particular case. The American Cranberry Exchange is another example of successful cooperation under conditions which are similar in many respects and equally unique. The apple growers of the Northwest had launched move after move for united effort which had gone to pieces on the rocks of local jealousies and conflicting interests.

There were a number of local, commodity organizations, which served useful purposes and which had achieved relative permanence and stability. The Yakima Horticultural Union was and is an excellent example. Several small associations in the Ozark region could be named. There was some cooperative endeavor in Florida, some in Colorado and in Michigan, and sporadic and repeated efforts in other parts of the country.

THE STATUS OF STANDARDIZATION

Perhaps no one thing contributed more directly to the failure of most cooperative endeavors than the lack of any sound basis for pooling sales and distributing high and low

prices equitably among the producers of goods of like quality.

California organizations which sold largely through the organized fruit auctions in the larger eastern markets had arrived at a degree of uniformity in packages filled by count or with specimens arranged in a prescribed order. The orange crop, largely controlled by the exchange, was supposed to be better standardized than any other. Its standards were in fact only brands under which a minimum degree of excellence was maintained. No grade specifications for oranges had ever been reduced to writing and given to the public.

The truth is that up to the date of the organization of the Food Administration there was not a single fruit or vegetable for which definite grades were recognized throughout the country. Holding meetings of growers to discuss and adopt grades was one of the prevalent diversions in regions of heavy production but the grades agreed upon usually represented an ideal and not what any considerable body of growers could be expected actually to put in their packages.

The writing of grade specifications was little more than a part of the advertising of the organization or district which issued them. The standards set in the literature of many organizations were impracticably high and were "interpreted" at harvest time to include anything which in the judgment of the shipper was "a good commercial delivery."

Local pride and jealousies did much to retard real progress in true standardization. There was a prevalent idea that it was a fine thing for a community or organization to have a distinctive brand and a separate and strictly local standard. There were more than 20 separate valleys and districts shipping boxed apples from the Rocky Mountains and Pacific Northwest. A dozen or more varieties were grown in each. Usually 3 grades or qualities were shipped of each variety. Worse yet, there were from 5 to 50 organizations operating competitively in nearly every district. Each had

its distinctive brands and often its special grade specifications. Picture the impossibility of educating the market on any such multitude of ill-conceived, often impossible and meaningless standards.

This is not an exaggerated picture of the situation which obtained in 1913-15. The possibility of nation-wide standards for any perishable was openly and generally doubted. The desirability of such a thing was freely challenged. Local pride said: "We will never suffer our unparalleled fruit to be packed and sold on any such low standard as must be set to meet the needs of the growers in yonder valley over the Divide, where they have multitudes of pests which to us are happily unknown."

The idea of educating the industry to buy and sell throughout the nation on the basis of uniform, standard grades, written to describe the product and not to aid in the exploitation of real estate, had found lodgment in only a few minds. Provincialism actually retarded progress and interfered with sensible and efficient marketing.

CURRENT INFORMATION

The student whose memory does not recall the situation in 1913 will have difficulty in picturing such a volume of business proceeding with so little knowledge of current and prospective supply and of prices prevailing in different markets and shipping areas. Such information as reached any shipping area from day to day was of private origin. It was sent or sought at private expense and was designed to serve private ends.

Market quotations in newspapers were notoriously unreliable as to perishables and were not prompt or detailed enough to be valuable as guides in moving a crop. Quotations issued by produce houses were usually designed to attract consignments to the particular city from which issued. The market information dispensed by itinerant buyers was designed to serve the ends of the dispenser.

No grower, except through the largest associations, could afford to obtain anything like regular and reliable market prices as a guide to his daily business. There was usually more profit in spreading misinformation than in broadcasting the truth. The "broadcast" of today was as yet unknown.

Nation-wide distributors guessed at the daily movement, paid for estimates of arrivals in certain cities, paid for telegrams to give them a few opening prices in key markets and sometimes secured private reports from competing producing areas. The larger the business the more information could be obtained at a given or relative expense. The smaller shipper was at a serious disadvantage. An immense volume of produce was shipped blindly and took its chances on the market. We have noted in a preceding chapter that it was this general dearth of current market information which contributed most directly toward forcing the organization of an official agency to deal with marketing problems.

DISTRIBUTION

Several commission firms had already become general distributing agencies operating over wide areas. There was at least one agency which operated on a nation-wide plan solely as a distributor of car lots and with no stores of its own. This particular type of service, now so prevalent, was then in its infancy.

The antitrust laws prevented close cooperation between distributors. Thus they hampered the working out of coordinated plans for the advantageous apportionment of the available supply of any one product to all the markets. The cantaloupe distributors operating in the Imperial Valley of California were then under indictment for having pooled their information and apportioned the total tonnage to the various markets on a definite pro rata basis.

Such systematic placing of supplies was exactly what the industry needed to lessen the evils of market gluts and

famines. These terms were on the tongue of every grower. They were among the evils most persistently emphasized by writers on marketing problems. Two remedies were needed to effect a cure. First, complete daily information on shipments, arrivals, and prices. Second, coordinated distribution of the daily supply. The first has since been supplied. Our laws still prevent the accomplishment of the latter through the most direct and effective means. If dealers were allowed to combine to allot each market its proper share of the total supply it would be necessary to provide disinterested, official supervision to protect the public against a possible agreement to limit certain markets to quantities which they would take at very profitable prices, thus protecting the dealers against losses in the markets where the surplus was deliberately concentrated.

The difficulty which faced the industry in 1913 was the problem of an almost constant oversupply. This has been the constant potential situation and the usually present situation ever since, except during the World War. The trade has honestly sought for outlets for the goods. The best men in the industry have been hampered by the impossibility, under existing law, of meeting the situation through modern methods of understanding and cooperation.

LACK OF STATISTICAL DATA

Prior to 1915 the public had only the most fragmentary information on the carload movement of fruits and vegetables. Certain railroads advertised the quantities shipped from certain points on their lines. Some associations secured fairly accurate estimates or records of shipments from given regions. No one had comprehensive records either of shipments, or of quantities delivered to the various markets.

There existed no body of statistical information showing price trends under differing volumes of production, movement, or delivery for sale. The basic knowledge upon which to plan a seasonal campaign was almost wholly lacking.

There were no distribution charts and price curves showing what had happened in past years.

Historical knowledge of fruit and vegetable marketing existed only in the memories of the men then active in the industry. This tremendous business had grown up within less than a generation and it had grown, as has been noted, under the stimulus of an insistent demand which local supplies could not fill. There was no central organization or agency to accumulate the statistics of the industry as it developed. There was no official agency especially authorized to do so. Therefore, the statistical history of the most interesting period of this industry, when fruits and vegetables were rapidly becoming one of the great items in the interstate commerce of the country, is forever lost.

In this respect order is slowing coming out of chaos. The World War interfered with its progress in some respects but aided in that it insured the cooperation of the carriers (under the Railroad Administration) in furnishing many of the needed data from day to day and at both loading point and point of delivery. Without the willing aid of the carriers we should still be groping in the dark for many of the statistics which form the basis of present-day marketing plans.

LEGISLATION AFFECTING MARKETING

State legislatures were struggling with the problem of regulating the commission merchant and the warehouseman. The cold storage industry was under violent attack. Some unwise legislation, aimed at groups of dealers in, or handlers of, perishables, was passed before the steadying influence of Federal leadership made itself felt. Several far-western states had horticultural or grading laws designed "to protect the reputation of the state." This object was frankly stated, and the United States Supreme Court has since upheld the right of a state to regulate the grading of products for that purpose.

Most of the marketing legislation of the states, the crea-

tion of Bureaus and Divisions of Markets, the adoption and promulgation of grades, the institution of local marketing services similar to or supplementing those of the Federal Department of Agriculture, and the promotion of cooperative organization, has been the product of the last 12 years.

TRANSITIONS IN PROGRESS

The transition from the best table varieties to the best shipping varieties was in full progress. Many commercial orchards at long distances from markets were shipping many varieties of apples or peaches simultaneously. Large plantings of single varieties had already been made, however, and the advantages of solid carloads of one variety were recognized. New districts, specializing in a few varieties giving excellent results, were confidently talking about "putting the East out of business."

Truck-growing areas on new, rich, irrigated soils where fertilization was not required were just beginning to exert the full force of their competition upon the trucking districts farther east where fertilizers must be used. The movement of vegetables from the Pacific Coast was new and not yet fully developed.

The distribution of fresh products in the large cities was perhaps at the height of its complexity, with the simplification incident to the chain store not yet in evidence but just ahead. Physical wastes and losses were probably at their maximum in proportion to the total volume of the movement, although no records are in existence to prove the point. There seems to have been a constant improvement in this respect since official observation began.

THE END OF AN ERA

By 1913 the pioneering of the country by the fruit and truck growers was practically complete. The last important new districts, the Imperial Valley of California and the

Lower Rio Grande Valley of Texas, both on the Mexican border, were in the last stages of their feverish development. Every nook and corner of the country where soil and climate permitted had been tested as a kitchen garden for New York and Boston. Fortunes had been made by enterprising dealers who promoted the industry in some new section which could put some one product on the market during a period when it met little competition.

The most important additions to the regions of commercial production since 1913 are the following: The winter garden area north of Laredo, Texas, now foremost in spinach production; the lettuce district of Watsonville and Salinas, California; the lettuce area on Puget Sound and some new lettuce areas of the Colorado mountains. There has also been tremendous expansion of winter gardening by American capital on the west coast of Mexico.

Fruit and vegetable production had been complicated with land development schemes, and in many regions was not on a sound basis. The producers were in large part an unstable population, quite as anxious to capitalize on increased land values as to make a living from the products they raised. There was probably never more confusion of counsel and less practical coordination of effort throughout an industry of such vast proportions and with so many interests in common.

The whole enormous industry was in a state of flux. The situation was ripe for the crystallization of the elements of permanence. While the wildest of proposals for better marketing found blind adherents, the substantial men among both producers and distributors realized that the time for patient, constructive endeavor had arrived. Subsequent tendencies have been in the direction of stabilization. Organization finds year by year a sounder basis and evolves a more effective method. The marketing of fruits and vegetables becomes year by year more of a science and less of a gamble. This chapter sketches the situation at the turning point.

XII

THE EVOLUTION OF STANDARDIZATION

Original intelligent selection. Varieties. Salableness. Demands of trade. Retailer's interest. Consumer's attitude. Grower's marks. Marking requirements. City grading. Why it was necessary. Why dealers preferred it. Trade-marks and brands. Brands precede grades. What brands mean. Practices behind brands. The tonnage solicitor. Brands debased for tonnage. Unprotected brands. Competitive brands. State standards. To protect local reputations. Defects of early grades. Grades as propaganda. "Good commercial delivery." Enforcement difficulties. Official Inspection and Certification. Mistakes by States. Grades without tolerances. Need for uniform grades. Opposition. Dealer's concept. Action by Food Administration. Potato grades. Need for uniform application. Federal inspection. The effort for uniformity. Educating the States. "Counting the apples." Standards made effective. Popularizing standardization. Demand for country inspection. Effect of Federal aid. Modification of State laws. The future. Consumer ignorance and education. Effects of scarcity. Of tolerance. The one thing lacking. California and New York leading.

It is difficult to fix a starting point in the process of standardization. The first intelligent selection of individuals, or types for breeding purposes, might be called the beginning. These selections by prehistoric man presumably were based upon productivity and appearance or flavor. These qualities were the measure of desirability.

The development of distinct varieties of fruits and vegetables was a great forward step. With improved varieties came greater uniformity as well as greater yield. Varietal differences are still among the most important determinants of price or market value.

During many centuries fresh fruits and vegetables were all consumed where they were grown and largely by those who grew them. As late as when our American towns began to furnish a cash market for the fresh produce grown near them, there appears to have been no concept of standards more definite than those lying on each side of a vague line

which divided the salable from the unsalable. This line ran through each variety. Sales were by variety rather than by any measures of market values within a variety. The housewife chose between lots, but in the early days of this trade the variations between lots were simply the differences between the crops of different growers, or they were varietal differences. Where growers sell directly to consumers, selection by comparison still determines price differences, and it is still largely true that everything which is usable is salable at a price.

THE DEMANDS OF TRADE

When highly perishable produce began going through the hands of one or more middlemen, a new situation arose. The dealers each handled far more than any one grower produced. Their customers came to them repeatedly and were dissatisfied when the goods of today were notably inferior to those of yesterday or last week. When the housekeeper visits the farmer's market, she expects to "shop around" and select what suits her. If the best of the season has passed, the general quality of the offerings proves that fact. When she visits her green grocer, she does not expect to "shop" further for her perishables. She hopes to find what she wants. If she does not find it, she may ask why. Explanations put no money in the grocer's till. Goods of the expected quality would have done so. Here we have the original basic urge for standardization, the retailer's desire to fill a repeat order to his customer's satisfaction.

The retailer demands goods which he can pass on to the consumer quickly, without present argument or the fear of future complaint. He also wants the smallest possible shrinkage in the process of retailing or in case goods must be held over for a few days. To meet these conditions he wants uniformity of quality and maturity and often of appearance and size.

As the trade in these perishables has grown in magnitude and the market season of most of them has been greatly

prolonged, consumers, accustomed to a wider choice of products and with the privilege of buying each through a longer season, have almost unconsciously grown more and more exacting. Thus inevitably, dealers have grown more and more discriminating in their purchases from wholesalers or growers.

In these later years, when surplusses have sought outlets and the trade has resorted to aggressive salesmanship, necessity has compelled the shipper to go even further and to try by painstaking selection and attractive packing to stimulate an artificial or competitive demand.

These efforts, first to meet the fancies of the trade and later to stimulate further demand for the goods, have taken many forms and afford an interesting study in themselves.

GROWER'S MARKS

Original competition between growers in the home market led to the establishment of personal reputations for excellence of products or honesty of pack. Some of these local reputations are still jealously guarded and cherished by individual growers who sell exclusively in one market and who maintain their trade against all comers. Frequently their standards are their own but are adhered to with such fidelity that their customers are not disappointed in the quality of the goods packed under their names. The grower's mark is probably the original conscious and consistent effort to accomplish some measure of commercial standardization. It was an advertisement, of course, but it was valuable only as it stood for quality well maintained.

Sometimes the grower's mark means that his lot is as good as the buyer may reasonably expect to find at the time, from the locality, or of the variety. In large commercial operations the distributor's or association's brand has often meant no more.

Today the grower's name and address are required on closed packages of fruits by the laws of many states and

by the rules of shipping associations in many others. This, however, is no longer to recommend or help sell the goods but to fix responsibility in case they fail to meet established standards which all growers shipping under an association brand or a specific grade are required to meet.

CITY GRADING

Before the commercial growers of perishables were so organized as to make possible the shipment of large quantities of goods of uniform quality, the industry passed through the period of promiscuous individual shipment to the markets for sale on commission. In earlier chapters we have noted the effect of this period on the subsequent financing and development of the industry. We revert to it again because it was the period when grading for resale began on a considerable scale.

Commission men and wholesale dealers alike realized that the miscellaneous lots shipped by unorganized growers were not the goods which retailers demanded. Jobbers generally wanted goods suitable for immediate resale to retailers. Commission men found that criticism of the shipper's methods did not encourage further shipments but made it easier for a competitor to secure his patronage.

The buyer who operated in the country also found that the grower will sell more readily to one who praises than to one who criticizes his products.

These appear to be the basic reasons why such a large business developed in grading and repacking farmers' shipments after they had reached the markets. Certain it is that this was done on a large scale. It seems to have marked the beginning of selling under dealers' brands. The object was to gain and hold the retailer's confidence by giving him something more uniform than could be obtained by simple selection of growers' lots as received.

This business became so extensive and the differences between the prices paid to growers and the prices received

for repacked goods were so great that it furnished one of the strong arguments for grower organization in the industry. The early preachers of reform and improvement in farm grading and packing dwelt eloquently on the folly of paying freight to market on stuff which was culled out and thrown away or sold for less than transportation charges.

For several years there was little encouragement given by the trade to those growers who sought to improve their packs. Dealers engaged in repacking under their own brands did not care to encourage the competition which was inevitable if growers sent equally uniform and reliable packs to their cities. There was an era, happily rather short, in which many dealers sought to make it appear that grading was an art which growers could not hope to master. It required a knowledge of qualities and market demands which only dealers could attain. The grower should cull his stuff as carefully as possible, then sell for the best price he could get and leave the dealer to do the more intricate and technical work of market grading and repacking. Such was the preachment.

TRADE-MARKS AND BRANDS

These devices were originated for advertising purposes rather than as honest efforts to establish measures of market value. Obviously the owners of a trade-mark are at liberty to sell under it any quality or grade of produce which may legally be sold at all. Likewise the owners of a brand may apply or attach it to any sort of goods they choose. In the early days of commercial brands in this industry it was expected that the brand must win its reputation gradually as the reliability of the goods sold under it became known. The honest shipping organization hoped that the goods sold under its best brands would be so uniformly good that these brands would be asked for by the jobber and retailer. It is only in relatively recent years that long-distance shippers have attempted to interest the consumer in their brands.

Brands preceded definite grades. Today the owners of some brands issue written specifications as to just what shall and shall not be packed thereunder. In such cases the brand becomes in fact a grade. This, however, is still the exceptional case. By far the greater number of commercial brands mean little more than that the goods are of the first, second, or third quality as shipped by this particular house, or association.

The brand carries with it the reputation of its owners. The brand of a strictly reliable shipper is also a guaranty of fair treatment in case of any mistake or well-founded complaint. It may become more valuable for the goodwill which has been built up for it than as a measure of the value of the goods packed under it. At its best a brand is accepted as symbolizing all that is suggested by the name of an honorable shipper or association.

The possibility of winning a reputation for the goods of a group or the products of a locality has been one of the inducements to form growers' organizations. Much cooperative organization preceded the days of official grades and standards for perishables. Brands were adopted and some were widely advertised. In most cases sincere efforts were made to make the brand mean something desirable for the dealer. When this was done and a reputation established, a struggle often ensued to maintain the reputation of the brand, because every member of the association was insistent upon having this brand on his goods.

Too often managers have yielded to the temptation to capitalize on the reputation of a brand and have allowed inferior goods to be packed under it. Sometimes shippers have been unwilling to give written specifications as to what would or would not be found under their brands because they have realized that they had no efficient means of securing uniformity. In some cases sweeping claims for a brand have been offered in lieu of any more definite information.

In so far as brands approximated grades in the earlier

years of their use they were, in effect, competitive attempts at standardization. In the absence of generally recognized standards and of specific grade descriptions the competition of brands served a useful purpose.

PRACTICES BEHIND BRANDS

Brands are private property. They are devised to serve the interests of their owners. The extent to which they will be protected or debased depends upon the point of view or the backbone of these owners. A brand with a desirable reputation in the markets is a business asset. How shall it be used?

It is usually the larger shippers, whether private or co-operative, who have made their brands well known. Nearly every one of these shippers is engaged in keen competition for tonnage, or for memberships which mean tonnage. Success in this competition is so essential that every resource must be utilized. A good reputation in the markets is a strong "talking point." If the goods sold under a certain brand have brought more than others during one season, the privilege of selling under that brand may induce other growers to join the association or sign a marketing contract with a certain shipper. Naturally, almost inevitably, the solicitor has said: "Join us and get the benefit of marketing under our brand." The solicitor is after memberships or tonnage contracts. He is not likely to be responsible for the grading or inspection of these products, if his employers do grade and inspect, so he does not concern himself with the quality of the products which this particular member or client is likely to offer for shipment.

Until very recently the owners of brands had no inspection services capable of enforcing adherence to any fixed standards. Inevitably the larger the group shipping under a brand the greater the diversity of qualities which would be shipped under it. Thus the growth in membership of some organizations has spelled the ruin of the reputation

of their brands. Holding out the privilege of using a brand as a means of securing grower patronage has been one of the most fatal mistakes.

In 1924 a director in a large grower's organization made a statement in a business meeting of its officers in substantially these words: "We have spent $250,000 in advertising our brand, but we have no internal method of protecting it. All of our local units use it. They will not remain with us if they cannot ship the greater part of their fruit under it. We issue our instructions as to what must not go under this brand, but we do not enforce them. Our shippers construe our instructions to suit their own conditions. Last season the fact that packages bore our trade-mark did not add a cent to their value, because we have not protected our brand."

In the face of such an admission one is tempted to ask what has been gained by the expenditure of the quarter million-dollar advertising fund. The apparent answer is that too wide a use of the brand with a lack of centralized control had nullified the effect of the advertising, and the money had practically been lost.

That same season an incident vouched for as having occurred in another part of the country illustrated another practice calculated to injure the reputation of a brand and to emphasize the difference between branded goods and graded goods. A large grower was solicited to market his fruit through a certain national distributing agency. He said: "There is my fruit on the trees. If you will pack and sell not less than 85% of it under your best brand I will let you market my crop." The distributing agency agreed to the terms. The particular crop in question may have justified the arrangement, but the principle is a vicious one and if followed can result only in debasing a brand thus mortgaged in advance.

The owners of some well-known brands make for them the general claim that they represent as good commercial delivery as can be expected of the particular product at the

time. This is sufficiently indefinite to admit of much dispute and compromise in case of dissatisfaction. At the same time, it carries with it a certain assurance to the dealer that he can buy it with safety as long as its owners enjoy a good reputation for dealing fairly with complaints.

Brands such as these mean that a rule of reason has been followed in packing the goods. The actual quality of the products under them must vary from season to season and perhaps from month to month if the owner of the brand operates over several degrees of latitude. They were useful under conditions which precluded anything better, but like all brands their significance is lessened by the recent progress in definite grading confirmed by official inspection.

There are a few instances in which permission to use a brand has been conditioned on an inspection by the selling organization. The methods of inspection have usually been open to just criticism as lacking thoroughness, but they have resulted in a vast improvement over the conditions which preceded any sort of inspection.

The limiting factor which characterized nearly all the early attempts to improve the quality of shipments by the use of brands was the element of competitive advertising which was nearly always present. There was a general effort to make the buyer think each brand better than the corresponding brand of a competitor. This is the basic reason why brands never became satisfactory measures of market quality or value. For the same reason brands were usually a most uncertain and unsafe basis for future contracts.

STATE STANDARDS

The competition of brands and the practices connected with their use seem to have led to the large amount of state legislation on the subject of grades and standards. It seems fair to say that the original demand for legislation arose from a realization that the unrestrained competition of brands was not good for the fruit-growing community. This

was especially true in the West, and the Far West has led in state legislation on this subject.

The argument in favor of state grading laws has usually been that they were necessary to protect the reputation of the state in the markets. One of their practical effects has been to limit or regulate the activities of the speculative buyer. Without the restraint of state laws he was free to pack the worst the vicinity afforded and ship it into markets where the goods of the region were favorably known. If he packed with any approach to the standards of those whose brands were known, he could work off much inferior stuff to the injury of the reputation of the region.

A complete analysis of state legislation on grading and packing fruits and vegetables is not necessary for our purposes. Such laws have taken many forms, and mistakes were to be expected. In some states, as in California, the specifications for each grade were written in the law and could be changed only by a subsequent act of the legislature. In others, as in Washington, the specifications were left to the decision of periodic meetings of specified groups or organizations. Vesting certain state officials with discretionary power to make and modify grades is a later development and has followed the introduction on a large scale of commercial grading on official standards.

DEFECTS OF EARLY OFFICIAL GRADES

The establishment of state grades preceding any provision for adequate inspection or enforcement led to many mistakes. Chief among these was a pronounced tendency to set up impossible standards. Enthusiastic horticulturists wrote specifications for ideal packs and called them official grades. The best that could be done in commercial practice was to approximate these standards.

Sometimes the promoter exerted his influence and the grades adopted were so worded as to describe the fruit which it was desired that the East should think that the

West produced. These grade specifications were intended to aid in the sale of real estate. They were a part of the general promotion and publicity work of the region.

The spirit of state rivalry also asserted itself, and we had the interesting spectacle of neighboring and competing states adopting slightly different grade specifications, each hoping to gain an advertising advantage over the other. Occasionally a state grade was changed for no other apparent reason than to make it different from a corresponding grade in a neighboring state.

It is evident that during this period, which continued until after the World War, the idea that grades for fruits and vegetables should be definite and permanent measures of differences in value had not found general acceptance.

"GOOD COMMERCIAL DELIVERY"

When grade specifications, whether official or fixed by shipping associations, were so strict as to be impractical, actual deliveries of fruits were of necessity on a different basis. The grade specifications were accepted as ideal. In practice the shipper expected to make what was called a "good commercial delivery." In the competition of the showroom, the strictest tests were expected to be applied. In the competition of the market place, they were not. Commercial lots were accepted or rejected largely on their general quality and appearance.

The net result of the establishment of these impossible standards was little more than the elimination from the commercial crop of certain types of defective fruit, the shipment of which was forbidden, and the division of the remainder into two or more grades, fairly distinct as to quality and value. There was no effective guaranty to the buyer that all lots of one grade would closely approach a specific standard. The printed standard was impracticable because too severe in its requirements, and packers' ideas of good commercial delivery were not standardized.

Some associations and a few private marketing agencies consistently approached the state standards. In a few cases the best grade of a distributor was above the requirements of the corresponding state grade. All shippers who were honestly trying to pack according to law resented the attitude and practice of those whose chief effort was to put into the higher grades everything which could be got out of the state without causing an arrest.

The few inspectors who could be employed as police officers by the states could not possibly enforce these grading laws. Even if it had always been practicable to comply with their terms, these small police forces could have done no more than to require the repacking of an occasional lot of fruit or compel the owner to mark it down to the next lower grade. Such things were done, but they were so infrequent that buyers soon realized that the enforcement machinery behind the state grades afforded them little protection. If state grades could have been uniformly and strictly enforced, there should have been no need for a certification service. Each lot would have been what the law required under the grade stamped on the boxes. Merchandising such fruit would have been relatively simple and safe.

The prevalence of "good commercial delivery" made the distant buyer unwilling to buy without the privilege of inspection in his own market. It also led to great uncertainty at home as to what allowance, if any, ought to be made when goods were rejected in the East. It was difficult to make shippers realize that the buyer would apply literally the grade rules which his packers were only approximating.

OFFICIAL INSPECTION AND CERTIFICATION

The failure of police inspection to bring about such uniformity in grading or such enforcement of standards as to inspire the buyer's confidence led to a new form of service by several of the states. In place of the legal presumption that goods met grade requirements because they had been

permitted to move, a state inspector now issued certificates on individual lots showing that they had been inspected and did meet grade requirements. This system provided a positive official statement as a basis for purchase and sale.

It must be admitted that the first attempts by the states to render this service were attended by serious mistakes and that a prejudice against state inspection sprang up in many markets. These errors and failures were more pronounced in states which attempted to certify vegetables than in those which confined the service at first to tree fruits. Grades for fruits, even though not well enforced, had been longer in the public thought and had been reduced to printed specifications. Grades for vegetables were hastily improvised and, as was to be expected, were made too rigid to be met in actual practice. This seems to have been the nearly universal tendency in all the early attempts by the states to write official fruit or vegetable grades.

Even if carefully done this early inspection work was doomed to be a disappointment. The multiplicity of state grades led to inevitable confusion in the markets. With some states changing their grades almost every year and other states establishing grades for the first time, no buyer who operated in a wide range of products could be sure what he was buying unless he spent much time in keeping pace with these constant changes.

It must be admitted that few of the early state certificates of inspection added materially to the salability of the goods they described. The idea was good and the principle sound, but usually two essentials were lacking; first, grades which could be rigidly applied; second, a force trained to uniformity in the interpretation and application of any standards adopted. The problems of personnel were aggravated wherever inspection was undertaken by groups directly employed by an elected officer. The employment of men to inspect the goods of their neighbors and friends was perhaps unavoidable in view of the usual salary limitations, but was bound to result in many unfortunate situations.

In some states grades were written without tolerances, and in at least one state, official certification was given to hundreds of cars on that basis. Every one of these documents necessarily certified to a misstatement of facts, for no group of human beings can pack any variable product to the precise requirement of a written rule. Good commercial practice requires speed, and speed involves the overlooking of an occasional blemish which should cause the specimen to be thrown out. The inspector who is told to inspect on the basis of a grade which provides no tolerances simply sets up mental tolerances of his own. These he applies with only a degree of uniformity. In a force of inspectors whose work is not closely supervised and who have no group training, a rather wide range of practice and interpretation soon develops. Grades without tolerances were the work of novices or advertisers. They were perhaps honest, but none the less mistaken, attempts to aid an industry or a region. Any inspection or certification service attempted under them became a joke or a reproach.

NEED FOR UNIFORM GRADES

Prior to the participation of the United States in the World War we had no uniform national grade for any fruit or vegetable. Certain brands for certain products were well known, and some of them had been fairly well standardized, so that the trade had a fair idea what to expect under them. These, however, were local products nationally distributed and known. There were no such brands or grades for any perishable which was widely produced. In fact, there was much prejudice against the idea. Local pride insisted that the products of this or that region could never be graded on the same standards which would fit the products of some other.

Dealers knew that the best apples or potatoes or cabbage of one region were very different from the best of another region. They jumped to the conclusion that no uni-

form system of grading was possible. Much of the difficulty was due to the habit of thought of the wholesale buyer. To him a "No. 1 grade" meant a combination of all the qualities and conditions desirable in the product. He wanted to say "No. 1" in a telegram and be guaranteed a satisfactory delivery. Size, maturity, color, condition, each according to his ideal, he wanted when he ordered "No. 1."

This ideal grade in the mind of the dealer was as absurd as the ideal state grades written without tolerances. Neither could be realized in actual practice. The dealer could reject any shipment he did not want to accept, on the ground that it was not No. 1. If No. 1 was to be reduced to writing and made uniform for the United States the dealer wanted it to include every good quality and characteristic and exclude all defects.

Much study by the Bureau of Markets of the United States Department of Agriculture had resulted in little change of grading practice or of grade nomenclature up to 1917. Its workers were, however, beginning to develop a point of view and a practicable method of approach. The exigencies of war brought matters to a head. The Food Administration asked the Department of Agriculture to recommend standard grades for potatoes, then ordered all handlers of potatoes to operate on the basis of those grades.

These grades were founded on relative freedom from specific defects, with definite and fairly liberal tolerances. They were applicable to the crop of any region, yet it did not follow that a No. 1 lot from one region would be at all like the same grade from another region in general appearance. These grade descriptions were applicable also to different varieties. From our later point of view they were unfortunate in that they combined the element of size with those of freedom from defects and decay, for it is now generally agreed that grade should deal with quality only, and that size should be named or specified separately. So far have we progressed from the dealer's point of view of 10 years ago.

NEED FOR UNIFORM APPLICATION

The organization of the inspection service for fruits and vegetables by the Department of Agriculture was almost coincident with that of the Food Administration. The latter immediately drafted the former to help in the enforcement of its potato regulations by inspecting doubtful shipments or those over which disputes arose. This inspection service, although not quite nation-wide, was available in most of the large cities and did much to bring about a uniform interpretation of the grades.

The history of the Federal Inspection Service is given at some length in the following chapters. We shall refer to it here only as an influence in the progress of standardization.

The organization of this service in the larger markets was the beginning of a process of ironing out local differences and jealousies over grades. At first the inspectors undertook to apply the standards under which the goods were supposed to be packed. If the shipper had published his grade rules, these were used as the basis for inspection. If shipped under the grading laws of a state, the state law was applied. Potatoes almost everywhere have been sold on the basis of United States grades ever since they were first enforced by the Food Administration, and the inspectors in the terminals have been under the necessity of applying uniformly a standard none too popular with many shippers and receivers.

What has been said of state inspection and state grading laws prepares us to understand what confronted the Federal inspector when asked to examine and certify to the grade or condition of many shipments of fruit from states having high standards poorly enforced. He found wide differences between lots of supposedly identical grade, sometimes wide divergence from the printed grading rules of the shipper. Sometimes even a state certificate must be challenged by his findings.

Above all, it was necessary that members of the Federal

force be uniform and consistent. Cars inspected in the Mississippi Valley on their way east might be inspected again in a seaboard city. The results were sure to be critically compared by the trade. From the first, class work and uniformity of training have been emphasized in the Federal service. Inspections were made by weighing or counting out samples which constituted a definite percentage of a bag, barrel, or box of the product. Each specimen in the sample was examined, and the percentage of defects and decay determined by count or weight. The results were not satisfactory to many shippers who had developed notions on what constituted "good commercial delivery" while claiming to ship under the terms of a printed grade.

Education in the field was necessary. Men were sent to the Pacific Northwest to demonstrate Federal inspection methods and to work for uniformity instead of diversity among state grades for boxed fruit. The impression made by the demonstration of these accurate, arithmetical methods of applying grade rules was well summed up by a wonder-struck grower who, watching a demonstration of Federal inspection, exclaimed: "Why, he *counts* the apples!" It was revolutionary at the time, but within five years every inspector in the Northwest was "counting the apples."

As a result of this work many states widened their tolerances and otherwise modified their grades in the interest of truth and practicability. There were laments from those who feared that this confession that their fruit was not perfect would hurt the value of orchard lands, so completely must everything in a new country play into the hands of those who are "developing" it.

The next move was to adopt grades recommended by the Department of Agriculture as a compromise between conflicting state opinions and in the interest of better marketing. For the past 10 years the trend has been steadily and rapidly in this direction. This is especially true with reference to products on which the states had not previously

legislated. Grades recommended by the Department of Agriculture for some 38 products are now the accepted standards for these crops throughout the country.

STANDARDS MADE EFFECTIVE

As soon as a competent inspection force under centralized authority was available for the use of all interested parties, grade specifications took on a new meaning. It was realized that a Government inspection force must operate with the greatest possible uniformity. The only basis for uniformity was the written or printed specification of the standard. The only way to secure uniform application of the standard was to apply it literally and rigidly.

Knowing that standards would be so applied by receivers, shippers had no choice but to apply them with equal care. There was a rapid and widespread improvement in grading practice. The grades recommended by the Department of Agriculture as the result of its nation-wide investigations, almost invariably became the basis for important commercial transactions soon after they were issued. The results of Federal inspections in terminal markets were expressed in terms of these recommended grades when no other basis of sale had been specified.

With the coming of large quantities of goods graded to fixed standards, it became possible to base official market quotations on sales of goods of known and comparable qualities. The basing of price quotations on the official grades in turn encouraged their use and hastened the progress of the reform in grading practice which has been so pronounced since the World War.

Without the inspection service it seems likely that grading would have remained indefinitely in the realm of theoretical discussion. State laws could have brought about only local and perhaps temporary improvements. Further substantial progress would have been made chiefly by the managers of strong associations who would have continued

to improve the uniformity of goods sold under their brands. The inspection service, however, hastened this process for the owners of well-known brands, for now an impartial agency was often called upon to inspect their branded goods and to certify to the extent to which they fell short of the standard which the brand was supposed to guarantee. In this way the inspection service of the Federal Government has resulted in making some well-known brands stand for more careful grading than they did before.

In short, the coming of a Government inspection service, available in the larger markets to all who care to use it, has put all shippers on their guard. All who pretend to pack in accordance with any fixed standard realize that they must take its provisions seriously or official certificates of their failure will soon be in the hands of their customers. The habit of writing grade provisions for advertising purposes is a thing of the past, since the advertising becomes a boomerang when inspection shows that the grade specifications do not describe the goods.

POPULARIZING STANDARDIZATION

Official inspection in the markets has served to promote uniformity of grading practice among those using like standards. It has made theoretical standards give way to practical standards. But official inspection conducted hundreds of miles from the average producer was not calculated to arouse his enthusiasm. The average grower is not particularly pleased to have the manager of his association tighten up on the grading and thus increase the size of his cull pile. If he has packed, as he believes, in accordance with the grading rules, he is not necessarily convinced of his error because an inspector in one of the large eastern markets reports that 15% of his fruit showed defects not permitted in a grade in which the tolerance is only 10%.

In the early days of the service some growers and shippers became frankly suspicious that the inspectors were

under the influence of the receivers in the markets where they worked. Others believed that they were technical rather than practical in scoring defects. There soon developed an emphatic demand that some provision be made for providing Federal inspection at the point of origin. The best western shippers felt that such a certificate in hand before the goods started east would be a valuable aid in making sales.

The method by which the necessary legislation was obtained, and the legal limitations on the new service at shipping points, are described in the following chapters on Government Inspection. The present purpose is to show the effect of this service on the evolution of standardization practice.

During the shipping season of 1921, Federal inspectors worked in an advisory capacity with the inspection forces of two western states. Their chief mission was to bring the practice and point of view of the state inspectors into harmony with those of the Federal force in the consuming markets. The chief end in view was to avoid the issuance of conflicting certificates by the two forces. The experiment proved that this was possible.

During the following year, 1922, arrangements were made for putting the Federal service within reach of the greater part of the shippers in 23 states. The number has been gradually increased to 40 states. It is this service which has popularized standardization.

Practical appreciation of what real standardization means has been brought home to the grower by several uses of this service. Some association managers have used this inspection as a means of showing the grower exactly why his products were not as good as those of other members and why they must go into a pool with the lower grades.

Buyers have quoted daily cash prices for goods which would pass inspection as U. S. No. 1. In the case of potatoes, for example, the quoted price would be paid when the car was loaded and the inspector's certificate delivered at

the buyer's office. Popular education as to what a standard means progresses rapidly under such circumstances.

State grading laws have been enforced on the basis of this inspection. This has led to the modification of such laws in the interest of practicability. They have been made more nearly to fit the bulk of the product actually to be shipped. They are no longer advertisements of the kind of products the state would like to produce. The average fruit grower knows what the grading must be and knows how to meet the requirements.

Pooling has become possible in organizations whose grading never before had enough uniformity to justify the practice. Pooling is by official grades. The ancients observed that one star "differeth from another star in glory" and that these differences were constant. Official inspection has taught the grower how one grade "differeth from another" in the making, and his returns from the market have taught him how one "differeth from another" in value. He is learning that these differences are relatively constant.

Finally, in the several recent seasons of heavy production, many growers, especially of vegetables, have found that the official standards establish a line between what can and what cannot be shipped to market at a profit.

WHAT OF THE FUTURE?

We have not intended to imply that the standardization of fruits and vegetables is now an exact science or that popular appreciation of what has been done is universal. The industry is still far from either goal.

The average city consumer enjoys the benefits of improved standardization while wholly ignorant of its processes and rules. Any unscrupulous dealer can impose upon most of his customers by calling any vegetables in his store "No. 1." If there are no better products in sight for comparison and if the quality of the goods offered is not too far below that to which the consumer is accustomed, the

dealer's statement regarding grade is likely to go unchallenged.

Defects which cause unusual loss in the process of preparation for the table, or which reduce the normal period of usefulness of the product, are factors of grade. They determine in large measure the value of the goods to the consumer. The careful housekeeper almost unconsciously appraises these qualities in making a personal selection of fresh fruits and vegetables. But no one has yet undertaken to educate the housekeepers of the country as to the meaning of our grades for these products nor as to how they are applied.

Prosperity has been so widespread in recent years that the cost of food has not been the major item in most American households that it has been in those of their ancestors since history began. Most of our people who are capable of grasping and applying our present standards for perishables are now able to buy the best they see, or the best their dealer has in stock, without regard to its grade. An inherited instinct of thrift, however, sends increasing thousands to the cash-and-carry stores. The chain store is buying more and more standardized perishables. Chain-store quality is not always U. S. No. 1, but the tendency is definitely in that direction. In this way many prudent and observant consumers are being educated, unconsciously, to the requirements of our new official standards.

Perhaps before this volume is wholly obsolete we shall again find it necessary to give careful attention to our purchases of foodstuffs. If and when this happens the average intelligent consumer may be expected to show a lively interest in a system of standardization which separates goods into grades of fixed relative values.

An unfortunate feature of our present state of progress is that our shippers tend to forget standards in periods of scarcity. Ungraded goods will sell when the market is relatively bare. Of course, graded goods might still bring more money in the aggregate, but the inborn desire of the

grower to sell all that he has produced and his idea that if he does not sort or grade it, he can get the price of No. 1 for his entire lot, are hard to overcome. Dealers allow their competition for the farmer's goods in times of scarcity to take the form of a willingness to buy them ungraded or with only the worst culls out.

This situation militates against consistent standardization. Its influence extends even to products standardized by state laws. There have been recent and conspicuous cases in which state standardization laws have been practically ignored by state officers because the quality of a particular crop was so far below normal that an enforcement of the law would have denied a market to products of very poor quality which had a money value under the unusual conditions of the season. Unfortunately consumers were not advised that state laws were being waived and were permitted to buy these products under the assumption that they met the minimum legal requirements.

It is probable that the future will see less of such legislation. We may hope for more consistency in applying grades or a frank admission that no standards are being applied.

There is one serious difficulty in the way of consumer education on grades—the tolerance. Most grades permit a tolerance of not more than 10% of specimens which fail to meet the grade requirements. If a barrel of apples contains exactly 10% of defective fruit, it may be of U. S. No. 1 grade. The average consumer will object, however, to accepting one defective apple in each 10 if she sees it. This may result in concentrating a large part of the tolerance in the last third of the barrel, after which it becomes difficult for the retailer to sell a 10-pound lot which will meet the requirements of the grade without careful sorting.

If all consumers knew just what the U. S. No. 1 grade requires, and if the retailer advertised and sold that grade, so many buyers would refuse to take their fair share of the defective specimens, or tolerance, that the dealer would fin-

ally be obliged to sell a part of his No. 1 purchase as of a lower grade. Furthermore, the defects are not evenly distributed through the lot. In the normal course of retailing from a carload grading No. 1, a large number of individuals will get small lots in which the grade defects exceed 10%. When consumers are fully educated on grades, every such sale may be a cause for complaint. It is not strange that the retailer makes no effort to explain to his customers just what the grades require and permit, in view of the added complaint which such knowledge would stimulate. These are some of the reasons why the education of the consumer will be slow.

As a practical matter the retailer is learning that a certified U. S. No. 1 grade means that he can sell most of the contents of the package at a uniform price to his best customers without fear of complaint, but that he may have to sell 10% to 15% at a reduction to someone who sees what she is buying. Perhaps this is the logical and legitimate end of standardization of fruits and vegetables in a prosperous country. If standardization puts within the reach of the retailer fresh perishables which are uniformly satisfactory to his customers and on which his loss, shrinkage, or lower-priced residue is also uniform, why annoy him or his customers by attempting to educate them as to the details of grade requirements?

In the realm of official action or requirement there remains one needed ruling in the interest of basic honesty. The face or exposed part of any package should fairly represent the contents of the package. Up to this time very few grades or grading laws contain this requirement.

A vast majority of our shippers appear to believe that such a requirement, if enforced, would result in lower prices. This seems illogical, but shippers contend that buyers would not pay the same price for the same grade, not topped or faced, as they do when the best specimens are sorted out for exposure in the face. The claim is made that if the quality requirements of the grade are met and

the minimum size in the package or lot is correctly stated, every obligation of honesty is fulfilled. This done, they insist upon the right to show the best and largest specimens in the face of the pack. However, such packs are disappointing when opened, and when exported they are called "false packs" by the foreign buyer. The legislatures of California and New York have taken action which indicates that the tide is turning against the practice.

XIII

EVOLUTION OF A TERMINAL MARKET INSPECTION SERVICE

A new story. Congressional initiative. First official discussion. History from the *Congressional Record,* February 10, 1916. The viewpoint shown. In Congress a year later. A minor item of major import. The *Record* in full. Personal sidelights. Honor to whom honor is due. Judge Bryan's letter. First authority for the service. *Congressional Record* June 1, 1927. Limits of first authority. Influence of the Food Administration. Potato grades and inspection. Widening the scope of the service. Reasons for changes. For charging fees. "Quality and Condition." Other perishable farm products. Designated markets. Payment of fees. Notices to shippers. Personnel and training. Scientific basis of the service. Growth under limitations. Effect of shipping point inspection. Demands for extension. Christmas trees. Inspections by commodities. Much service with little taxation. Income by fiscal years. Deficits in small markets.

THIS chapter is written because there is nowhere in print any connected or complete history of the origin and growth of the Federal inspection service for fruits and vegetables. The facts show something of the inner workings of Congress. The sincerity and the evident desire of members of both Houses to contribute to the economic welfare of the people is clearly proved by the *Record.* The story shows how a minor item in the day's work of Congress may become a vital factor in the development of a great industry.

The Department of Agriculture, as a result of its studies and experiments, outlined to Congress a plan for a Market News Service for fruits and vegetables and suggested the size of the original appropriation. The Inspection Service, on the other hand, was suggested by men in the industry and was brought forcefully before Congress by a Senator who took advantage of the favorable reception of his idea to draft on the spur of the moment the language of the enabling clause which first became law.

In the interest of absolute accuracy, quotations are taken verbatim from the *Congressional Record* and a personal letter from ex-Senator, now United States Circuit Judge, Nathan P. Bryan, is given in full. The statements and explanations which complete the story are based upon the author's personal knowledge of the facts.

The first official discussion, of which we have any record, regarding an inspection service for perishables was in a hearing on an annual appropriation bill before the Agriculture Committee of the House. It is interesting to note that the growers' request was for Federal inspection at shipping points rather than in the markets. The Member whose constituents asked for this service apparently did not think such a plan practicable. His questions indicate his misgivings and seem designed to elicit replies which could be quoted in answering his petitioners. The witnesses here quoted were Charles J. Brand, Chief of the Bureau of Markets and Rural Organization, and Messrs. Bassett and Moomaw, specialists in cooperative purchasing and marketing in that Bureau.

The *Congressional Record* reports the following on February 10, 1916, in the "Hearings Before the Committee on Agriculture, House of Representatives, Sixty-Fourth Congress, First Session on the Agriculture Appropriation Bill." The item under discussion provided money for the investigation and promotion of cooperative marketing by farmers.

MR. MCLAUGHLIN (of Michigan): Mr. Bassett, yesterday I spoke to Mr. Brand of a resolution passed by a local Grange in my district, at Traverse City, suggesting the advisability of Federal legislation for inspection of fruit at the shipping point, and setting out some of the difficulties they had had. You are familiar with that?

MR. BASSETT (Department of Agriculture): Yes, sir.

MR. MCLAUGHLIN: About the condition of the fruit when it is shipped, the prices paid, and the conditions reported at the receiving point, and so forth? If you have charge of that line of work or are able to give me something by which I can properly answer the inquiry of that Grange, I wish you would do it.

Mr. Brand (Department of Agriculture): Mr. McLaughlin, if I may interrupt, that work is handled in connection with another project and will be dealt with in connection with that project, and we will be glad to respond. Preliminarily, I will say that we believe that is a field to which we should go with our investigational work during the coming year. We are not advanced to a point where we can say an appropriation should be made for an inspection service, but it does begin to appear as though there were no effective way of treating producers in faraway sections rightly without some disinterested inspection service. But that is a matter for future work rather than of present work, and we believe that gradually from year to year we will be coming before this committee and making suggestions.

A little later on the same day Mr. C. W. Moomaw was under examination, and the record shows the following:

Mr. McLaughlin: What do you say in answer to my question about the difficulty confronting the fruit growers in my district—those who suggested Federal inspection at the point of shipment, and so forth?

Mr. Moomaw: There have been several demonstrations in the states, Mr. McLaughlin, as to what can be done by official or semiofficial inspection. I have in mind a large district in the Pacific Northwest, one of the largest apple-growing districts in that section. They passed a law in the state providing for standard; that is, standards of grade and pack before the shipments were made. They realized that probably a great deal of their difficulty in the markets was due to their failure to put this fruit up in proper condition for market. They found that out through organization. So the state passed a law, and in this section they organized a league of the growers to enforce this inspection in the district. The state did not pay for that service; it was paid for by the shippers. The independent agents and the cooperative organizations in the district agreed to set aside a certain sum per box to pay for this inspection. That service has proved to be a guaranty to the trade, and it is claimed they have been able to make very much better sales on the strength of the guaranty and the state certificates which went along with the cars.

Mr. McLaughlin: These organizations which you speak of could only operate at large shipping points, and if inspection were made by any authority it could only be at large shipping points. Is not that true?

Mr. Moomaw: I do not know just what quantity of fruit is

shipped out of Traverse City. Mr. Bassett tells me it is a very large shipping district.

MR. MCLAUGHLIN: But in a state like Michigan there are innumerable stations from which shipments are made. I do not see how it would be possible to reach any considerable number of them by any kind of organization—by any kind of even local inspection, to say nothing of Federal inspection. Do you?

MR. MOOMAW: It can be done in the commercial districts. There are some fruit-growing districts, Mr. McLaughlin, where no great quantities of apples are grown, and those people will always have difficulty, because, in the first place, to be successful they must be known as commercial producing districts and must ship in sufficient quantities to justify organization. Of course, it would be better for those districts if they could secure outside inspection which somebody else would conduct, but, of course, it would involve tremendous expense on the part of the Government if it undertook to inspect all these apples.

(Thereupon, at 12:40 o'clock p.m., a recess was taken until 3 o'clock.)

Note that as recently as 1916 a young, constructive, and successful Bureau Chief and a young, enthusiastic, and widely experienced investigator hesitated to admit the possibility of a Federal inspection service which within two years was safely launched and within eight years was a nation-wide reality and almost wholly self-supporting. Strangely enough the apple growers of Traverse City, Michigan, who first brought the question before Congress, have never yet (1927) been given an opportunity to utilize this service at point of origin. This is because of peculiarities in state and national legislation discussed later.

Nothing further seems to have been said or done during the life of the Sixty-Fourth Congress with regard to an inspection service until the matter was brought up in the Senate about a year later, when it was given definite form under the leadership of Senator Nathan P. Bryan of Florida.

On Saturday, February 3, 1917 (legislative day of Friday, February 2, 1917) the Senate assembled at 11 o'clock a.m. on the expiration of the recess. After a little prelim-

inary business the Senate, as in Committee of the Whole, resumed the consideration of the bill (H. R. 19359) making appropriation for the Department of Agriculture for the fiscal year ending June 30, 1918.

A little later in the discussion the Senate reached the consideration of the various items of appropriation for the Bureau of Markets, formerly the Bureau of Markets and Rural Organization. In connection with one of these items providing for the collection and distribution of information connected with the marketing of live-stock, meats, and animal by-products the following discussion took place (I quote from the *Congressional Record*):

Mr. Bryan (of Florida): Mr. President, I want to call the attention of the committee to a class of work that it seems to me could be done by this department better than any other department of the Government, and to a class of work that ought to be done, in my judgment, by some of the departments.

In looking through the items of appropriation I observe, on page 77, an appropriation of $289,000 for the purpose of acquiring, and acquainting people with, useful information on subjects connected with the marketing and distributing of farm products. The next item is an appropriation of $184,000 to acquaint them with market prices of fruits and vegetables. The next item is an appropriation of $66,000 to enable the Secretary to gather information as to the different classes and grades of live stock, and so forth. Then we reach an item that has been stricken out of the House Bill. Perhaps it is stricken out because it is thought that the work to be done is very largely that of investigating the manipulation of markets. Then, following that, is a provision for the expenditure of $48,000 to investigate the condition of cotton. The next item is for the purpose of enabling the Secretary to make studies of cooperation among the farmers, and it appropriates $30,000. Then we come to an item at the bottom of page 79 appropriating $106,000 for the purpose of investigating the handling, grading, and transportation of grain. Still further on we come to several items to enforce certain acts of Congress, one being the cotton-futures act, for which $98,000 is appropriated; then, to enable the Secretary to carry into effect the provisions of the grain-standards act, the considerable sum of $519,000 is appropriated.

Mr. President, in every part of the country farmers are engaged in marketing fruits and vegetables which are shipped to the great commercial centers. A great proportion of these shipments are made to commission merchants. When a shipment is made to a commission merchant by a farmer living thousands of miles away, very frequently the report comes back to him that the fruit or vegetables were received in bad condition. The farmer has no means of knowing whether that statement is correct or not. Many of them believe, whether they are justified in that belief or not, that advantage is taken of their inability to question the accuracy of the statement. Even if the statement is correct, Mr. President, the particular shipment involved may be small in amount, and may not justify the bringing of a suit to collect against the transportation company whose delay in delivery caused the fruits or vegetables to be in a decayed condition.

If this department which has undertaken to fix the standards and marketing of grain could in some way place agents at the great cities to which the fruits and vegetables are shipped and from which they are distributed to the smaller markets, I do not hesitate to say that I believe the benefit would equal any benefit conferred by the provisions of this bill.

Mr. Gronna: Mr. President . . . .

The Presiding Officer: Does the Senator from Florida yield to the Senator from North Dakota?

Mr. Bryan: I do.

Mr. Gronna: Is it the understanding of the Senator from Florida that the $50,000 which has been stricken out would be used for that purpose?

Mr. Bryan: No; I will say to the Senator that I have not that impression; neither do I see any provision in the bill that would enable the department to do the thing I have in mind.

Mr. Gronna: Mr. President . . . .

Mr. Bryan: If the Senator will permit me just a little further . . . .

Mr. Gronna: I was simply going to say to the Senator that I am heartily in favor of putting something into the bill to protect the shippers, because I have had some experience in that line and know something about it; and as one of the members of the committee, I shall be very glad to cooperate with the Senator from Florida.

Mr. Bryan: It has occurred to me, Mr. President, that perhaps in carrying out the various activities here provided for there would be located in these large cities agents of the Department of

Agriculture who could be of assistance in remedying the situation I have attempted to bring to the attention of the Senate. For example, if it could be made the duty of the consignee of fruits or vegetables, in case he intended to claim that they have arrived in bad order, to report to an agent of the Bureau of Markets and get his certificate upon the fact, and then if we could provide that that certificate should be prima facie evidence of the truth, it would enable the farmer back in the state from which the goods came to bring suit. But as things are now, if he could bring a suit and prove his case it would cost him a prohibitive amount to gather up the evidence; and, moreover, there would be great difficulty in the first place in ever ascertaining whether or not the statement made to him was correct.

From what I have learned on this subject I believe it is true that the farmers throughout the country are imposed upon by many commission merchants. The temptation is very great for a man of irresponsible character to set up a commission house. I do not mean to say that that obtains as a rule, because there are commission merchants who have been long established and who have held the confidence of shippers from my state, I know, for half a century, but new concerns spring up and they get business. They will promise before the shipping season comes on that they will take the truck. The farmer agrees to ship it to him and he is unable to collect. The fruit or vegetables leave the point of shipment in good condition and when they arrive at the market it is claimed that they are in bad condition.

I mention this not with any idea that it can be taken care of upon this bill, because it would have to be in the nature of general legislation, but I wish to call the attention of the committee to it and I hope they will call the attention of the department to it, so that something along this line may be done . . . I am not familiar enough with the Bureau of Markets to know whether they have such men in great cities like New York, Philadelphia, Chicago, and St. Louis.

Mr. Smith (of Georgia): Will the Senator allow me to interrupt him for just a moment?

Mr. Bryan: I yield.

Mr. Smith (of Georgia): I will not take the Senator off the floor. I will say to him that the director of the Bureau of Markets has been studying this question and has during the past year undertaken to experiment in an effort to work along the line the Senator suggests at two cities. Of course, he has not funds enough under his appropriation to carry it into practical operation. He has said to me that it ought to be done, and if it was

done at about 25 cities in the United States that would cover the present demand of the producers of foodstuffs that are of a perishable character. I feel sure that by the time another bill comes around the test will have been made sufficiently for the Department of Agriculture to give us a definite suggestion on the subject.

MR. BRYAN: I am very glad to have that statement from the Senator from Georgia. I do not see anything very difficut in the Department having in those cities agents, when the goods are claimed to be in a bad condition, to inspect them and give a certificate, and let that certificate be prima facie evidence of the truth of the statement made.

The discussion then reverted to an item in the bill which had been stricken out because it was felt that it authorized the Department of Agriculture to make investigations which belonged properly to the Federal Trade Commission. The record indicates that there was confusion in the minds of some Senators who thought that Senator Bryan was describing useful work which might be done under the item stricken out, when in fact he was suggesting an entirely new activity. Senator Smith, of Georgia, apparently understood what Senator Bryan wanted, while Senator Smith, of South Carolina, apparently did not. A little later in the discussion Senator Smith, of Georgia, said:

> The class of work to which I was referring is entirely different work. It is the stationing of an expert in a city to watch and advise as to the real condition of perishable products that come into the city and make some investigations, not with the power of action but just for information, as to the extent to which the rights of the farmers were disregarded in the treatment of their perishable products in the city.

Again the discussion reverted to the item stricken out by the House, with several questions and answers exchanged between Senators Townsend, of Michigan, and Smith, of Georgia. The proposal of Senator Bryan, of Florida, began again to crop out in the discussions. (I quote from the *Record*.)

MR. GRONNA: Mr. President, I took some part in the debate when this provision was considered in committee. I understood

from what explanation was made to me that the provision suggested by the Secretary of Agriculture was simply for the purpose of giving the Department of Agriculture or the Secretary of Agriculture the same power that the Trade Commission now has. If an amendment is offered on this floor giving the Secretary of Agriculture the power asked for by the Senator from Florida to investigate the marketing of food products and perishable goods, I certainly shall not object to it. I think it would be very wholesome legislation.

MR. SMITH (of Georgia): Will the Senator yield to me a moment?

THE PRESIDING OFFICER: Does the Senator from North Dakota yield to the Senator from Georgia?

MR. GRONNA: I yield.

MR. SMITH (of Georgia): I do not think what the Senator from Florida asked for really has any relation to the provision on page 78 that we struck out. The Senator from Florida was considering simply agents in the cities to watch the treatment of perishable goods sent in by farmers. The provision we struck out proposed to place upon the Secretary of Agriculture the duty of making investigations into trade combinations and trade monopolies, not with reference to perishable goods but with reference especially, as we viewed it, to meat and to grain, and so forth, in the great distributing centers. He said, "I cannot do that unless you give me additional power," and he sent us a bill quite elaborately prepared to that end. We recognized the fact that the Trade Commission has that authority now, although we did not claim that it was performing it.

MR. GRONNA: That is exactly the way I understood it; but I simply wanted to express my sentiment that the suggestion of the Senator from Florida appeals to me, and if there is any way in which we can insert a provision in the Agricultural appropriation bill, either now or in the next bill, I am heartily in favor of it.

MR. BRYAN: I am glad that so many members of the committee feel that way about it. It occurs to me perhaps if the amendment striking out the language in the House is agreed to that would throw the matter into conference, and it may be that after consultation with the Secretary of Agriculture a provision of that kind could be reported back from the conference committee. It is not a very difficult thing, it seems to me, to provide for. I would not have one of these agents in any of the cities go to the trouble to investigate all the shipments, because that would be an

insurmountable task, but we could provide that upon the claim by the consignee of the perishable goods that they were in bad order he must notify the agent if we had one there and get a certificate from him; otherwise the goods would be considered as arriving in good order.

I have no doubt that with this amendment agreed to, the conference committee can, after consultation with the Secretary, report something of value. He knows what agents he has already in the cities and how much burden it would be to undertake this work, whether we should have to employ new people or people already in the employ of the Government could give it their attention.

Again the discussion reverted to the House amendment, which the Senate committee had eliminated and which a number of the Senators evidently desired to have restored. Finally Senator Bryan saw the opportunity to get his proposal before the Senate as a substitute for the amendment under discussion and the following quotation from the *Congressional Record* shows what occurred:

MR. BRYAN: Mr. President, is the amendment on page 78 now pending?

MR. SMITH (of South Carolina): It is.

MR. BRYAN: In lieu of that amendment I move the amendment which I send to the desk.

THE PRESIDING OFFICER (MR. MYERS in the chair): The amendment to the amendment will be stated.

THE SECRETARY: In lieu of the portion proposed to be stricken out insert the following . . . .

MR. BRYAN: Strike out the words in the House text and in lieu insert . . . . the committee amendment simply strikes out the House text.

THE SECRETARY: Strike out lines 13 to 19, on page 79, in the following words:

> To make investigation relating to the production, transportation, storage, preparation, marketing, manufacture, and distribution of agricultural food products, including the extent, manner, and methods of any manipulation of the markets or control of the visible supply of such food products or any of them by any individuals, groups, associations, combinations, or corporations, $50,000.

And insert:

To enable the Secretary of Agriculture to investigate and certify to shippers the condition as to soundness of fruits and vegetables when received at markets under such rules and regulations as he may prescribe, $25,000; Provided, That the certificates issued by the authorized agents of the department shall be received in all courts as prima facie evidence of the truth of the statements therein contained.

Mr. Smith (of South Carolina): Mr. President, I think that amendment is proper, and the committee has no objection to it. I think it will cover the ground.

Mr. Jones (of Washington): Mr. President, I hope the amendment of the Senator from Florida (Mr. Bryan) will be agreed to. I was rather surprised when I read the lines here to see that they were stricken out by the committee. It seemed to me they covered a very important phase of our commercial life, and I felt that the committee must have had some very overpowering reason for striking them out. I am glad that the amendment has been proposed by the Senator from Florida, and I hope that it will be adopted, because it seems to me that it will assure putting the whole matter in conference, and I have no doubt that then the conference will be able to work out something, if this amendment does not, that will take care of a situation that needs looking after.

I merely want to add that in my section of the country, which is a fruit-growing and vegetable-producing section, I have heard many times of instances where farmers have consigned their fruits or their vegetables to market and the report has come back that the commodities were in bad condition, and in some circumstances a bill for freight was sent them. They have no means of ascertaining the truth or falsity of such representations; and it seems to me we cannot do anything better for the interests of the farmers and producers of the country than to get some plan worked out along the line of the suggestion of the Senator from Florida.

The Presiding Officer: The question is on agreeing to the amendment offered by the Senator from Florida to the amendment offered by the committee.

The amendment to the amendment was agreed to.

The amendment as amended was agreed to.

Thus the record of the proceedings in the Senate on February 3, 1917, shows the origin of the movement for an

official Inspection Service for fruits and vegetables. One of Senator Hoke Smith's statements implies that he had discussed the question with the Chief of the Bureau of Markets. In that statement he referred to two men whom the Bureau was supposed to have working on this problem in an experimental way at the time. These men were in fact studying the problem of establishing grades and standards for fruits and vegetables and the practicability of applying these standards through an inspection force in terminal markets. A commercial service of the sort now actually in operation was not then under consideration.

Mr. Charles J. Brand, who was then Chief of the Bureau of Markets, states that it is his impression that the language of the item offered by Mr. Bryan was submitted to him either by memorandum or over the telephone before the final action was taken, and that he expressed the opinion that it would cover satisfactorily the proposed activity. However, the *Record* shows clearly that Senator Bryan took the initiative, introduced the subject, and discussed it so tactfully and clearly that he enlisted immediately the interest and support of other Senators, especially those who represented fruit or vegetable shipping areas. Senator Smith, of Georgia, was deeply interested in the marketing of the peach and watermelon crops of his state. Senator Gronna, of North Dakota, represented shippers of large quantities of potatoes, and Senator Jones, of Washington, represented a very large fruit shipping constituency. Senator Smith, of South Carolina, who was in charge of the bill, also represented extensive trucking interests and approved this amendment as soon as it appeared in definite form.

The conference committee of the House and Senate on the bill failed to agree to this amendment, or the House of Representatives rejected it. At all events, it was subsequently referred to by Senators as having been "lost in conference" and the bill making appropriation for the Department of Agriculture for the fiscal year 1918 did not authorize the Secretary to inaugurate an inspection service.

HONOR TO WHOM HONOR IS DUE

As will be seen from later quotations from the *Record,* it was Senator Jones, of Washington, who championed the inspection item when the next legislative opportunity occurred. That time the item became law. This has given rise to the impression that he was the legislative father of the inspection service. The *Record* proves, however, that he never claimed credit for the idea although he supported it as soon as it was presented.

To clear away any possible doubt as to the origin of the idea and the language supplied by Senator Bryan, a copy of the foregoing transcript from the *Record* and of the connecting comments was sent to him in May, 1926, with the request for any additional information which he could supply from memory. It was particularly desired to learn whether the language for the item was drafted on the spur of the moment or whether it had come to him from the Department of Agriculture. The public has been inclined to credit the Bureau of Markets with the inception of all its commercial services, but the reply of Judge Bryan shows that the inspection service was an exception. The Bureau was urged into the field of commercial inspection before it dared to recommend such action.

N. P. Bryan
United States Circuit Judge

Jacksonville, Florida
May 25, 1926

Mr. Wells A. Sherman
Specialist in Charge of Fruit and Vegetable Division
Bureau of Agricultural Economics
Department of Agriculture
Washington, D. C.

Dear Mr. Sherman:

I am in receipt of your letter of the 19th inst., in which you inquire whether I recall having discussed with anyone in the Department of Agriculture an amendment offered by me to the Agricultural Appropriation Bill in February, 1917, and partic-

ularly whether the language of that amendment came from anyone in that Department.

I recall very distinctly the circumstances under which the amendment was adopted, though, of course, the excerpts from the *Record,* which you included in your history of the movement which resulted in the establishment of inspectors at terminal markets, refreshed my mind on some of the details.

I did not communicate with anybody in the Department about the amendment. In the Summer of 1916, I think it was, Mr. Thomas J. Peters, then of Perrine, Dade County, Florida, who at that time was extensively engaged in growing and marketing tomatoes, wrote to me suggesting that it would be of untold benefit to shippers of fruits and vegetables if Government inspection could be had at the great terminal markets of the country, so that there would be a disinterested witness whenever a claim was set up by a consignee that a shipment had arrived in bad condition. I think Mr. Peters now lives in Miami, Florida. The idea suggested by him appealed to me, and when the Agricultural Bill was before the Senate, I took advantage of the opportunity to call it to the attention of the committee in charge of the bill, not with the idea at first that it could then be enacted into law, but in the hope that later on it might be. Those in charge of the bill seemed to be favorable, and I then hurriedly prepared an amendment so that there would be something to work on in conference, with the expectation that if the amendment were not satisfactory, it could be perfected in conference after consultation with the Department. The amendment was not improved upon or agreed to in conference. After the bill had been sent back, twice my recollection is, the Senate receded. I was glad to know that, in June following, the amendment was put on a special bill to stimulate agriculture, under which at this time an average of about 30,000 cars annually are being inspected at terminal markets.

I am returning herewith the carbon copy of the history of inspection prepared by you for the Department, and will appreciate it if you will send me a copy of your statement in its final form.

Yours very truly,

(*signed*) N. P. Bryan

FIRST AUTHORITY FOR THE SERVICE

On Friday, June 1, 1917, the Senate resumed the consideration of the bill (H. R. 4188) "To provide further for

the National security and defense by stimulating agriculture and facilitating the distribution of agricultural products." After various proposed amendments had been discussed and disposed of, the *Congressional Record* contains the following:

MR. JONES (of Washington): Mr. President, on page 7, after the word "products," in line 5, I move to strike out the comma and insert a semicolon and the matter which I send to the desk.

THE PRESIDING OFFICER: The Senator from Washington offers an amendment, which will be stated.

THE SECRETARY: On page 7, line 5, after the word "products," it is proposed to strike out the comma and to insert a semicolon and the following:

"For enabling the Secretary of Agriculture to investigate and certify to shippers the condition as to soundness of fruits, vegetables, and other food products when received at markets, under such rules and regulations as he may prescribe; Provided, That certificates issued by the authorized agents of the department shall be received in all courts as prima facie evidence of the truth of the statements therein contained."

MR. JONES (of Washington): Mr. President, I simply want to say that this is a provision that we put in the last Agricultural appropriation bill, and it was brought back a time or two and disagreed to by the House conferees. It simply enables the Secretary of Agriculture to use part of this money to have agents in the principal markets of the country to inspect products shipped in there and certify as to the condition in which they are received. I think it is a very important amendment and one which will result in very great good to the shippers of the country, and I hope it will be adopted.

THE PRESIDING OFFICER: The question is on the amendment of the Senator from Washington.

The amendment was agreed to.

The item as thus amended and as it stood in the bill when passed on August 10, 1917, is as follows:

For gathering authoritative information in connection with the demand for, and the production, supply, distribution, and utilization of food, and otherwise carrying out the purpose of section two of this Act; extending and enlarging the market news service; and preventing waste of food in storage, in transit, or held for sale; advice concerning the market movement or distri-

bution of perishable products; for enabling the Secretary of Agriculture to investigate and certify to shippers the condition as to soundness of fruits, vegetables, and other food products, when received at such important central markets as the Secretary of Agriculture may from time to time designate and under such rules and regulations as he may prescribe: Provided, That certificates issued by the authorized agents of the department shall be received in all courts as prima facie evidence of the truth of the statements therein contained; and otherwise carrying out the purpose of this Act, $2,522,000.

It thus appears that Senator Jones, of Washington, was immediately responsible for the insertion of this language in the bill which first authorized the inspection service. This act became effective and the money available in August, 1917, which was early in the fiscal year 1918. The first inspection work of the Bureau of Markets was organized and prosecuted for several months under this authority. No specific sum was appropriated for the inspection work, but it was financed by an allotment within the Bureau from the lump sum of $2,522,000 appropriated. The Department was not authorized to charge fees for this service and was authorized to make these inspections only for shippers.

There is nothing in the *Record* to show whether Senator Jones consulted with the Department on the language of his amendment, which is substantially the same as that which had been inserted by the Senate as an amendment to the Agricultural Appropriation Bill in the preceding February, but which, as Senator Jones said, was "disagreed to by the House conferees."

This work had hardly begun when the Department found itself embarrassed because of its lack of authority to make these inspections for receivers, transportation companies, and others having a legitimate interest in the character and quality of the goods. It proved to be a rather slow and difficult matter to acquaint all the shippers of the country with their privileges under this language. This limited the early usefulness of the service.

INFLUENCE OF THE FOOD ADMINISTRATION

The organization of the Inspection Service under a War Emergency Act made it almost contemporaneous with the Food Administration. The Food Administration placed all dealers in foodstuffs under license. We noted in the last chapter that it called upon the Department of Agriculture to recommend standard grades for potatoes and then made the use of these grades mandatory by all carload handlers of potatoes. The specifications of these grades were new to a large majority of the dealers. Naturally many questions arose as to the exact application of the grades. Opinions differed widely as to the blemishes which were admissible or inadmissible in U. S. No. 1 under its wording. Dealers referred their disputes or protests to local food administrators. These were usually public spirited men of high character but seldom were experts in the handling of perishables.

Meantime the workers in the Bureau of Markets who had been investigating the possibility of uniform grades for perishables and who were responsible for the wording of the potato grades, were put in charge of the newly authorized Inspection Service. They were rapidly training a corps of men in uniform methods of inspection and in standard forms of expression in the certificates issued. Uniform interpretation of the potato grades was of major importance.

Naturally the Food Administration wished the aid of these inspectors in settling disputes between dealers or between the carriers and either the shipper or the receiver. The language of the item authorizing the service limited its benefits to shippers. However, it was ruled that any inspector of the Department of Agriculture might aid any food administrator in determining the quality or grade of shipments of fruits and vegetables.

Many quick-witted dealers took advantage of this ruling. They appealed to the local food administrator on any shipment over which they expected difficulty with the shipper. The food administrator asked the Federal inspector to make

an examination and report the facts to him. Thus, from the first, many inspections were made for others than those specified in the enabling clause.

By June 30, 1918, less than 10 months after the work began, 6,069 inspections had been made, chiefly for shippers and without expense to the applicants. Within that time permanent inspection offices had been opened in 34 of the larger cities.

WIDENING THE SCOPE OF THE SERVICE

Based upon its experience during this 10-month period, the Bureau suggested certain changes in the language of this item, which were approved by the Congress so that the act making appropriations for the Department of Agriculture for the fiscal year ending June 30, 1919, which passed Congress on October 1, 1918, (Public No. 219) carried the following:

> For enabling the Secretary of Agriculture to investigate and certify to shippers *and other interested parties the quality and condition* of fruits, vegetables, and *other perishable farm products* when received at such important central markets as the Secretary of Agriculture may from time to time designate, under such rules and regulations as he may prescribe, *including payment of such fees* as will be reasonable and as nearly as may be *to cover the cost for the service rendered*: Provided, That certificates issued by the authorized agents of the department shall be received in all courts of the United States as prima facie evidence of the truth of the statements therein contained, $113,000.

The italics emphasize some of the important changes. A brief review of the reasons for each is essential to a study of the growth of the service and to an understanding of some of its present limitations.

The right of application for service was extended to all "other interested parties" in the interest of fair play. It was often impossible for the inspector to know whether the applicant was or was not an authorized representative of the shipper. Receivers on commission often wished inspections

as evidences of their good faith in the reports of bad condition which they were obliged to make to shippers. If the goods were consigned the receiver was the legal representative of the owner or shipper and could demand the service. If he had bought the goods outright he had no right to the service under the wording of the item of 1917. The inspector could not demand proof of ownership or agency before making an inspection, especially as the requests frequently came by telephone or telegraph and the products would be unloaded and dispersed within a few hours.

Furthermore, the carriers were soon seen to be large potential users of the service. Their interests in the condition of the goods they delivered were direct and important. As far as they would use these impartial certificates as the basis of claim settlements the ends of justice would be served.

Finally, since a fee was to be charged, a larger volume of work was desired, that the service might, if possible, approach self-support. The bill carried $113,000 for the support of this service which had thus far yielded no revenue. This was the first specific appropriation for this specific work and determined the size of the organization which the Department might maintain for this activity. Obviously a group employed for such a specialized service should serve the widest constituency possible.

"QUALITY AND CONDITION"

The first authority was to inspect "as to soundness." This was too narrow to allow inspections to determine whether sound products met grade requirements, or the descriptions or specifications of the terms of sale. Under the stimulus of war prices increasing thousands of cars of perishables were bought f.o.b. shipping point instead of being consigned for sale on commission. Innumerable disputes arose over the quality, condition, or size of these goods after they reached destination. Outright rejections were frequent. Either party might wish official inspection. The basis of the controversy

might even lie in slackness of pack or the type of container. "Quality and condition" have been construed as covering everything pertaining to the product, including its temperature, packages, and packing.

"OTHER PERISHABLE FARM PRODUCTS"

The item of 1917 said "and other food products." This, if taken literally, included canned goods, cured meats, grain products, sugar, and even manufactured and proprietary foods. None of the other authorized activities of the Bureau of Markets dealt with these commodities. The scope of its marketing investigations has been generally defined as including "farm and non-manufactured food products." There is no evidence that anyone in Congress really wished to force the Bureau into these unfamiliar fields.

It was soon evident that official inspection had a mission in a wider field, especially in the certification of the quality, or "score," of butter. In later years important work has been undertaken on eggs and fresh meats, all under the authority of the language adopted for this item in 1918.

DESIGNATED MARKETS

The service was limited for several years to "important central markets which the Secretary may from time to time designate." The original advocates of the item appear to have expected no more than that existing forces would be authorized to render this service as incidental to some other regular work. The extent of the demand for these certificates by interested parties other than shippers was not foreseen. The senators who sponsored the item did not wish to burden the Bureau of Markets. They did not contemplate a universal service. They left the Secretary free to designate the points at which it would be undertaken.

The Bureau of Markets accepted and at first perhaps welcomed the limitation. It gave excellent grounds for

declining applications for service at out-of-town points. The legal advisers of the Secretary of Agriculture were of the opinion that an inspection made at any point not previously designated by him as "an important central market" would represent a misuse of public funds and that a certificate issued on a shipment so inspected would be unauthorized and not prima facie evidence in court.

A year or two later, when the unfortunate restrictions of this language began to be keenly felt, Congress was not in the mood to favor any apparent extensions of departmental authority or activity. If, as actually happened, a western shipper asked for an inspection of his own apples in storage-in-transit at Winchester, Virginia, or Salina, Kansas, no Federal inspector could go from Washington, D. C., or from Kansas City to make the inspection until the Secretary had proclaimed to the world that he had designated Winchester or Salina an important central market for the purposes of the Food Products Inspection Law. This language finally imposed a needless restriction on the usefulness of a salaried force and reduced its earnings for the Treasury.

This limitation was not removed until the bill was passed making appropriation for the fiscal year 1923. The trouble was cured by inserting the words, "or at points which can be conveniently reached therefrom," after the word "designate." It is now permissible for any inspector to inspect at any point within his reach.

Meantime the number of designated markets had increased from year to year. Inspectors had never been located permanently at more than 31 markets at any one time, yet the number of designated markets were as follows:

For the year ending:	
	1918..... 48
	1919.....164
	1920.....176
	1921.....182
	1922.....222

In other words, the demands of the industry were such that inspectors in 31 cities were actually making occasional

inspections in as many as 222 different towns. The Secretary of Agriculture had designated each of these towns "important central markets," under the new wording inserted in the bill when making appropriations for 1923.

THE PAYMENT OF FEES

The requests for inspection from receivers and common carriers and the relatively large amounts often at stake early led to the conviction that reasonable fees could be collected for this service. It was also certain that if the service remained *free* to all applicants after it was made available to all financially interested parties, the limited force of the Department would be overwhelmed with requests for inspection.

The experience of the first part-year furnished no safe basis for determining what fee should be charged. No one knew how highly the certificates were valued by those who held them. No one knew how small a fee might prove a deterrent to the farmer-shipper for whom the service was instituted. So the Department was permitted to determine the fee by the method of cut and try. The Department decided to try a fee of $2.50 for each carload inspected and for each fraction of over one-half carload. It was not expected that this would cover the entire cost of service but it was feared that a higher fee might forestall the desirable growth of a work which had an enormous educational value to the fruit and vegetable industry.

For several years the Department sent a copy of each certificate to the shipper even though he was not the applicant. Any other financially interested party could obtain a copy of any certificate on payment of a fee of $1. Protests by receivers and the growth of the business finally moved the Department to discontinue sending free copies to shippers on July 1, 1924. It is still the practice, however, to mail the shipper a notice whenever a car is inspected at the request of another interested party.

INSPECTION PERSONNEL AND TRAINING

The first administrative head of the Inspection Service was Wm. M. Scott, a trained research worker and the successful developer and operator of large orchard properties, whose headquarters were in Washington, D. C.

The active organization, training, and supervision of the force was delegated to B. B. Pratt, a man of outstanding commercial experience in fruit marketing, with excellent technical training, whose headquarters were in Chicago. The original plans would have made Chicago the actual managerial center of the Inspection Service, but the untimely death of Mr. Pratt during the influenza epidemic of 1918 threw active responsibility back upon the hands of his superiors in Washington. The need for the rapid training of new men and the quick expansion of the work into a major project soon precluded the idea of its autonomous supervision.

If the certificates issued by Federal inspectors were to be accepted as authoritative they must be accurate or above reasonable attack. If the work was to command the respect of the trade in the great central markets the inspectors individually must enjoy the confidence of the practical men on Produce Row. The inspector must be fairly mature, well educated, immovably impartial, firm in the face of criticism, yet able and willing to explain clearly the conditions found in any shipment. His certificates must state the facts so accurately that every statement in them can be sworn to.

The Department has from the first insisted on at least two years of responsible work in the commercial fruit or vegetable industry as a minimum prerequisite for this work. It has made all selections from registers established by the Civil Service Commission. It has usually selected new men in classes and has given them a course of four to six weeks of intensive training in the laboratory study and identification of the diseases most frequently found in fruits and vegetables in commerce. The certificates give the scientific

as well as the common name of the cause of any decay or deterioration found.

Scientific accuracy in diagnosis was early found essential if the certificates were to be useful in fixing responsibility for the condition of products which had deteriorated. Infections of some diseases causing decay occur only in the field. The development of others occurs only at relatively high temperatures, and their presence in damaging amounts is proof of improper refrigeration in transit.

A force capable of such work can be retained only at higher salaries than any commercial inspection agency can afford to pay. The Government cannot afford to do work of such ordinary efficiency that a commercial agency can compete with its quality.

The wide diffusion of these certificates among growers has had an immeasurable educational value. It has shown them *how* their perishable crops arrived in distant markets and *why*. In most cases the Department can suggest a remedy.

Because of the facts outlined in the last two paragraphs it is recognized that the inspection of fruits and vegetables in central markets on request is never likely to be wholly self-supporting.

These trained men are constantly leaving the service for important positions in the industry where they are exerting a profound influence on the produce trade. Already several graduates from the inspection and market news forces are influential production managers, sales managers, or territorial representatives of some of the largest producing and shipping concerns in the fruit and vegetable world. Among them also are influential brokers, professional writers for the trade press, and the heads of the marketing departments, bureaus, or divisions of several states.

This is a silent yet most profound influence of a governmental activity upon an industry which it serves. All this has been accomplished within 10 years from the day the Bureau of Markets was authorized to undertake this work.

GROWTH UNDER LIMITATIONS

The reports of the Department of Agriculture are for fiscal years ending June 30. The first fiscal year of the inspection service was really only 10 months. The number of inspections in terminal markets for each fiscal year is here shown:

1918 (10) months.	6,069	1923	28,169
1919	14,493	1924	29,283
1920	25,488	1925	32,334
1921	23,877	1926	32,531
1922	31,207	1927	32,794

In 1919 Congress changed the language of the law so as to limit inspections to interstate shipments. This was done with the expressed purpose of checking the growth of the work. A member of the committee said that he feared that the activities of the Bureau of Markets would outrun all bounds.

The effect of this change was to prevent Federal inspection of New York State products in New York and Buffalo, of Illinois shipments in Chicago (almost their sole market), of Pennsylvania products in Philadelphia and Pittsburgh, and so forth. This restriction, together with the limitation of all work to designated markets, operated to check the normal expansion of the service up to 1922. The increase of the fee from $2.50 per carload to $4 per carload early in the fiscal year 1921 did not seem to result in any loss of patronage. The industry was learning to use the service more and more effectively. Confidence in its essential accuracy and uniformity was increasing.

EFFECT OF SHIPPING POINT INSPECTION

The story of the inception, growth, and effects on the industry of the inspection service at points of origin belongs to another chapter, but its effect on the work in the terminals must be noted in passing. It was anticipated that

when large bodies of shippers could obtain Federal (or joint Federal and state) certificates at the shipping point they would have far less use for the service in the terminals and that the terminal work would shrink.

The experience of the first five years since shipping point inspection was begun has not borne out this theory. It has been true of certain products from certain districts, but other needs for the service in the cities have arisen. Exporters have in recent years found official certificates of increasing value. In fact, many foreign orders for apples specify official inspection as a condition of the purchase.

In many cases products inspected at point of origin are shipped and later, stored where, after several months, inspection for condition is requested as a guide in deciding upon their disposal.

Common carriers are constant yet discriminating users of the service. Its revelations of the causes of loss and damage and its accurate determinations of the percentage of loss from freezing and other injuries have made it most valuable as an aid in the adjustment of some classes of claims. The existence of a certificate showing the exact condition of a shipment at point of origin may give added value to a second certificate of condition issued later at destination.

In spite of the increasing thousands of certificates now issued at points of origin, the demand for the extension of terminal inspection service to additional cities has been constant, indicating that the industry finds an increasing rather than a decreasing use for this protection.

The Department entered the fiscal year beginning July 1, 1927, with 38 permanent terminal inspection headquarters.

These inspectors have been called upon to examine for condition or grade at least 86 different products in a single season, practically all in carloads. The commodities, with the number of inspections of each, are shown in the tabular statement on the following page. If the Christmas tree item excites interest, it may be explained that carloads of trees are frequently received which are much taller than called

for by the order. They may be otherwise out of condition, but inspections are most frequently requested to determine the average or maximum length of the trees.

TABLE I

MARKET INSPECTIONS BY COMMODITIES, JULY 1, 1926, TO JUNE 30, 1927.

Fruits:	
Apples	5,544
Apricots	40
Avocados	8
Bananas	61
Cherries	582
Cranberries	58
Currants	6
Figs	79
Grapefruit	706
Grapes	2,553
Lemons	113
Limes	8
Oranges	605
Other Berries	162
Peaches	1,868
Pears	965
Pineapples	32
Plums	68
Pomegranates	2
Prickly Pears	3
Prunes	123
Quinces	1
Raisins	2
Satsumas	3
Strawberries	2,347
Tangerines	47
Mixed Citrous	20
Mixed Fruits	9
Mixed Fruits and Vegetables	1
Total Fruits	16,016

Nuts:	
Chestnuts	18
Christmas Trees	6
Peanuts	532
Pecans	2
Walnuts	9
Total Nuts	567

Vegetables:	
Anise	2
Artichokes	25
Asparagus	359
Beans	538
Beets	59
Brussels Sprouts	9
Cabbage	772
Cantaloupes	378
Carrots	214
Casabas	19
Cauliflower & Broccoli	183
Celeriac	2
Celery	629
Celery Cabbage	1
Chicory	28
Corn	50
Cucumbers	250
Eggplant	31
Endive	4
Escarole	12
Garlic	11
Greens-Dandelion-Mustard	18
Horse Radish	1
Honey Dews	46
Kale	15
Lettuce	883
Malangas	1
Melons-Mixed	4
Mushrooms	3
Okra	4
Onions	1,388
Onion Sets	17
Parsley	29
Parsnips	6
Peas	222
Peppers	281
Persian Melons	1
Potatoes	6,488
Radishes	23
Rhubarb	8
Romaine	9
Rutabagas	66

(Table continued on page 237)

Miscellaneous:	
Coconuts	6
Flower Bulbs	2
Holly	1
Honey	3
Sunflower Seed	1
Total Miscellaneous	13

Shallots	10
Spinach	295
Squash	22
Sweet Potatoes	338
Tomatoes	1,725
Turnips	87
Watermelons	546
Water Cress	4
Mixed Vegetables	82
Total Vegetables	16,198
Grand Total	32,794

MUCH SERVICE WITH LITTLE TAXATION

The sums collected as fees and covered into the Treasury of the United States are of importance in this study only because they show the extent to which the industry has paid for its own service. The fees have been exceedingly small in view of the amounts often in controversy.

The charge for inspecting a carload or fraction over one-half is $4. For less than one-half carload the fee is $2.50. Some work is done for a charge per hour, usually on miscellaneous small lots or on large quantities going on board ship. One dollar is charged for each copy of a certificate furnished to another than the applicant. Thus the income does not agree in detail with the number of inspections reported for each year. Furthermore, the carriers pay their bills quarterly or at other intervals which do not correspond with fiscal years, so the collections are never completed within the year in which the fees are earned.

Since October 1, 1918, the collections for inspection work in the markets have been as follows:

Fiscal Year	Receipts
1919	$ 24,000
1920	57,493
1921	93,431
1922	121,575
1923	129,902
1924	122,073
1925	128,896
1926	137,787
1927	143,183

The work in the larger markets where a group of inspectors can be kept fully employed earns for the Treasury almost exactly what it costs. In the smaller markets there has been a small net cost to the Treasury for a service which is of marked public usefulness.

The substantial measure of self-support shown by this service has encouraged Congress to be relatively liberal in increasing its appropriations during the years of postwar retrenchment.

XIV

EVOLUTION OF SHIPPING POINT INSPECTION

The demand. Post mortem certificates. Senator Jones' efforts. Representative Summers' success. *Congressional Record.* The new authority. How it was begun. Regional development. Service here and there. Earlier preparation in the Far West. Federal-State cooperation. Partial support by Congress. Factors affecting early growth. Situation in Colorado. Five western states. Growth in the East. Inspections for 5 years, Table II. Inspections by products, Table III. Variations in demand for inspection. To forestall rejections. Not used on cheapest goods. Effect of abnormal scarcity. Crop failures. Lowered quality. Changes in market policy. The f.o.b. auction. Based on official inspection. Its psychology. Its method. Quick returns. Fifty cars an hour. Future of shipping point inspection. Divers possibilities. Can a service make itself needless? Progressive education. One reversal in 2,000. Service not necessarily essential.

Official inspection had begun as a part of the special activities due to the war. At first it was associated in many minds with the work of the Food Administration. As the war organizations were disbanded and the many special appropriations for unusual activities were discontinued, the inspection on request of fruits and vegetables at terminal markets remained. The industry had learned to use the service and would not be denied.

Meantime the demand for inspection and certification at point of origin, where the shipper would have an opportunity to see and correct his errors in grading and packing, was becoming constant and insistent. Many insisted that a certificate issued in New York on products from beyond the Rocky Mountains was of relatively little use, and some shippers referred to all such certificates as "post mortems."

As early as December 15, 1918, Senator Jones, of Washington, introduced a bill designed to give the Secretary of Agriculture the same authority to inspect at designated shipping points as at designated markets. This bill failed to get out of committee. On February 11, 1919, he reintroduced

the same measure as an amendment to the Agricultural Appropriation bill but did not secure its adoption. There is no further official record of attempts to authorize inspection at point of origin until the successful fight of Representative Summers, of Washington, made March 11, 1922, during the consideration of the bill making appropriation for the Department of Agriculture.

Mr. Summers represents the district which comprises the important fruit and vegetable sections of Yakima and Walla Walla. His constituents were using a state inspection service and were keenly alive to the advantages which would result from a Federal in place of a state certificate. Informal discussion with the Committee during hearings on the bill had not resulted in the desired change in the language of the inspection item.

When the bill was before the House in Committee of the Whole, Representative Summers asked the consent of the Subcommittee which had reported the bill, to an amendment to insert the words, "When offered for interstate shipment or," before the words "When received," and so forth. Representative Anderson, in charge of the bill, agreed that if Representative Summers could persuade the House to agree to this change the Committee would not oppose it. The proposal precipitated a short but lively debate under the five-minute rule. The *Congressional Record* shows Mr. Summers speaking in part as follows:

> Mr. Chairman, this paragraph provides for Federal inspection of fruits and vegetables, and other farm products at the receiving point, the point of final destination. My amendment simply makes it possible for an inspection to be made at the shipping point, before the grower has incurred the expense of several hundred dollars for freight in order to get his products to a distant market and there probably have a question raised as to quality or condition or possibly have it condemned. . . . .
>
> Here is a point where there are a thousand carloads of fruit going into interstate commerce. The producers of that fruit have put all their year's labor into it, and are subjected to the added expense of the high freight rate for several hundred miles, and

they never know whether it will be received at the other end of the line without a controversy, when it is two or three thousand miles away from the shipping point. Heretofore the inspection has been at the eastern market, where the fruit was received, and not at the shipping point.

Certain members objected strongly, but the logic of the situation prevailed and the amendment was agreed to.

It was in this same bill that the Committee had at the request of the Department of Agriculture stricken out the words "When received in interstate commerce," and had added the words "or at points which may be conveniently reached therefrom." The language of the item as finally passed in the Appropriation Bill for the fiscal year 1923 (the new authority dating from July 1, 1922), and which has remained unchanged except for the addition of the word "cotton," was as follows:

> For enabling the Secretary of Agriculture to investigate and certify to shippers and other interested parties the quality and condition of fruits, vegetables, poultry, butter, hay, and other perishable farm products, when offered for interstate shipment or when received in such important central markets as the Secretary of Agriculture may from time to time designate, or at points which may be conveniently reached therefrom, under such rules and regulations as he may prescribe, including payment of such fees as will be reasonable and as nearly as may be to cover the cost for the service rendered: Provided, That certificates issued by the authorized agents of the Department shall be received in all courts of the United States as prima facie evidence of the truth of the statements therein contained.

Thus through the intelligent effort of one man the whole field of shipping point inspection was thrown open to the Department and a new form of service began to be available to the fruit and vegetable industries.

HOW IT WAS BEGUN

Congress had, however, made only a beginning. Fruit and vegetable shippers from one end of the country to the

other were trying to sell the largest possible part of their shipments f.o.b. shipping point. The situation was ripe for building a new, nation-wide, and, if necessary, a wholly self-supporting service of untold value to the industry. The Federal certificate was needed as a basis of sale and as an evidence of fulfillment of contract.

If Congress had provided for financing the work, the industry could from the first have made wider use of this service than has ever been possible. A large initial appropriation would have been necessary with annual increases running finally into millions a year to meet the calls for service if the fees were to go into the Treasury. On the other hand, the addition of a few more words to authorize the use of the fees for the support of the work would have solved the whole difficulty, and the future course of the industry might have been modified materially.

But as neither provision was made, the result has been a very regional and irregular development of this service, for reasons shown later, which has made it impossible for many shipping districts to secure the services of an authorized inspector.

SERVICE HERE AND THERE

The details of administrative strategy by which the Department of Agriculture worked out ways and means for giving some service under its new authority have never been printed. They are not essential to the story of the growth of this activity which already plays such an important part in present-day marketing, yet the evolution of this service and its widely differing status in different states cannot be understood unless the limitations of the Federal Department are appreciated. In many cases the limitations on state authority have been as hampering.

As noted in Chapter XII on "Standardization," several states had attempted to improve marketing conditions by legislation on the grading of fruits. These usually had some regularly employed personnel, men who were primarily

police officers but who could be utilized to give a commercial inspection service.

Anticipating the possibility that Congress might put the government into shipping point inspection work and to prevent if possible conflict between state and Federal certificates, the Department of Agriculture in 1921 had loaned supervisors to California, Colorado, Idaho, Oregon, and Washington. In each of these states a certification service had been undertaken. Every effort was made to bring the ideas and practices of the state inspectors into harmony with those of the Federal men in the terminal markets.

This was the general region in which the industry felt the greatest need of the Federal certificate. In each of these states the laws or the absence of laws permitted the work to be financed by its own earnings. The problem was to combine Federal and state authority and resources. This in brief was what was undertaken. It remains the basis of the inspection at shipping points to this time (1927).

The Federal Department has undertaken to furnish the supervision and to train the men in the several states who were to do the work. They have been issued Federal licenses to inspect under the Federal law, but they do not hold Federal appointments nor draw any Federal salary. Usually they are paid by the states from the earnings of the service.

All money received by the Federal Department from this work must go into the Federal Treasury. All Federal expenses in this work must be paid from the annual appropriations. All the work in terminal markets must be provided for before any money can go into the more recently authorized field service. The Federal Department aims therefore to receive from each state only enough money to offset its expense of supervision in that state, leaving all other income from the work to support the service in the state where the work is done.

Insuperable difficulties arise in states whose laws do not permit the operation of revolving funds and whose legislatures have appropriated no money which can be used for

inspection work. Under such circumstances it was practically impossible for inspection work to be undertaken. The state must assume the responsibility of collecting the fees and paying the inspectors if work on any considerable scale is to be done.

In some states small legislative appropriations are made which support a limited inspection service for a few products. With revolving funds prohibited, the fees collected go into the state and Federal treasuries. The program is thus limited to what the appropriation will support, regardless of the demands for service.

Every sort of cooperative arrangement has been made in the effort to meet the needs of the industry, but the work although reaching every section of the country is still patchy, and several states are wholly without such service.

PARTIAL SUPPORT BY CONGRESS

By various makeshifts the work was started in 22 states the first season, and during the first fiscal year more than twice as many inspections were made at point of origin as had ever been made in one year in all the terminal markets combined. This showed where the industry wanted the service.

The work grew so fast and its supervision proved such a problem that Congress added about $40,000 to the Federal inspection item for the cost of supervising the new work, thus by inference accepting the theory that this work, although a Federal activity, must in fact be developed as a joint activity, which limited the work largely to those states whose laws permitted their officers to operate revolving funds.

Other occasional increases in the Federal appropriation have about equaled the increased cost of supervision as the work has spread to some extent into each of 40 states, but the evolution of this important function is still far from complete.

FACTORS AFFECTING EARLY GROWTH

There were a number of reasons for the large use which was made of this service during its first year. Perhaps the fact that it was not possible for the Federal Department to develop the work unaided, as it had done in the terminal markets, made some state officers more willing to strain a point to provide this service for their growers.

In Colorado a mandatory state inspection law was in the second year of its operation. There was, of course, opposition.

Making the state certificate, which the shipper was obliged to take and pay for, a joint Federal and state certificate which most shippers were glad to get at the same price, made easier the enforcement of the law. The work in Colorado was put on a cooperative basis immediately, and that state furnished more than one-third of the shipping-point inspections during the first year.

The inspection of potatoes was practically compulsory in Idaho because of a legal tangle over quarantine regulations. This forced some shippers to use the new service who might not otherwise have done so.

The 5 far-western states in which local inspection forces had been organized during the previous year issued almost 11 of every 12 certificates written at shipping points during the first season, yet the work was started in 17 other states.

Many of these states have systematically sought to build up the work, utilizing every resource to make it more serviceable to their shippers. The states along the Atlantic coast shipping large quantities of early potatoes saw in this service an aid in consummating f.o.b. sales. In the second year of the work, Nebraska, which had a mandatory inspection law governing potato shipments, desired cooperative certificates and threw her entire production of 4,830 cars into the scale.

Gradually the use of the service by growers and shippers east of the Rockies has increased until in the year ending

June 30, 1927, the 5 states, which at first furnished over 90% of the business, furnished only about 65%. Table 2 shows the number of shipping-point inspections in each state and the total for each year since the work began. Table 3 shows the number of carloads of each fruit and vegetable inspected at shipping points during a single fiscal year.

TABLE 2

SHIPPING POINT INSPECTIONS DURING FIVE FISCAL YEARS

	1922-23	1923-24	1924-25	1925-26	1926-27
Alabama	.....	251	....	...	...
Arizona	....	300	4	646	1,615
Arkansas	....	88	528	1,274	975
California	17,778	46,424	37,517	52,277	50,689
Colorado	24,815	10,341	14,086	18,739	19,159
Delaware	....	50	108	440	322
Florida	162	8,370	10,710	3,840	9,997
Georgia	45	1,392	7,510	2,014	4,080
Idaho	13,338	18,403	11,366	17,177	15,852
Illinois	....	208	269	217	232
Indiana	....	551	631	1,623	1,890
Iowa	....	...	229	790	866
Kansas	....	855	1,420	397	1,425
Louisiana	....	266	273	566	634
Maine	384	...	105	2,073	5,567
Maryland	...	...	549	1,373	2,852
Massachusetts	67	7	...	...	...
Michigan	...	...	730	59	669
Mississippi	...	1,709	336	436	783
Missouri	36	204	584	19	278
Montana	444	305	115	340	425
Nebraska	...	4,830	2,835	526	330
Nevada	...	34	23	...	...
New Jersey	1,499	719	669	396	611
New York	905	1,475	1,685	2,339	3,430
North Carolina	...	566	2,707	4,937	2,127
North Dakota	432	...	...	...	...
Ohio	78	169	662	227	379
Oklahoma	...	...	1,038	531	775
Oregon	387	4,442	4,128	5,808	9,397
Pennsylvania	...	274	203	348	1,668
South Carolina	1,091	1,712	1,082	184	925
South Dakota	308	368	188	...	...
Tennessee	51	232	134	229	275
Texas	...	6,349	8,289	12,510	8,673
Utah	651	1,642	1,518	1,318	1,345
Virginia	4	526	2,099	2,942	8,531
Washington	8,917	15,360	14,980	25,062	30,119
West Virginia	39	232	317	1,091	2,796
Wisconsin	1,035	2,305	1,460	2,796	3,821
Total	72,466	130,959	131,087	165,544	193,512

TABLE 3

SHIPPING POINT INSPECTIONS BY PRODUCTS, FISCAL YEAR 1926-27.

Fruits			
Apples	42,285	Cabbage	2,981
Apricots	65	Cantaloupes	4,107
Cranberries	25	Carrots	634
Cherries	206	Casabas	12
Grapes	33,419	Cauliflower	1,242
Grapefruit	3,628	Celery	2,167
Lemons	28	Chicory	19
Oranges	2,570	Corn	211
Peaches	9,604	Cucumbers	280
Pears	6,068	Endive	1
Pineapples	1	Garlic	4
Plums	5	Honey Dews	1,486
Prunes	1,653	Lettuce	7,513
Quinces	1	Mustard	4
Raisins	1	Onions	8,213
Strawberries	685	Onion sets	13
Barreled Berries	31	Parsley	1
Other Berries	101	Peas	125
Tangerines	147	Peppers	76
Mixed Citrus	1,011	Potatoes	49,713
Mixed Fruit	93	Rutabagas	4
Mixed Fruit and vegetables	22	Spinach	2,216
Total Fruits	101,649	Squash	1
Walnuts	1	Sweet Potatoes	1,349
		Tomatoes	3,889
Vegetables:		Turnips	9
Artichokes	44	Watermelons	733
Asparagus	67	Mixed Vegetables	1,240
Beans	113	Mixed Melons	2,707
Beets	29	Total Vegetables	91,862
Broccoli	658		
Brussels Sprouts	1	Grand Total	193,512

VARIATIONS IN DEMAND FOR INSPECTION

There are many reasons why the demand for this service is not constant from year to year. First, it is of supreme importance when most of the products of a region are being sold f.o.b. It furnishes a definite basis for the f.o.b. sale and at the same time the certificate is evidence that the shipper has fulfilled his contract. It tends to increase in value as the volume of shipments increases and buyers become more critical.

The shipper who holds a certificate signed by an authorized agent of the Secretary of Agriculture can bring strong moral pressure to bear upon the buyer who attempts to reject goods upon arrival without just cause. Rejections are always based upon some cause, real or alleged. It would be difficult for any dealer to remain in business who refused to accept and pay for his f.o.b. purchases without excuses which had some semblance of plausibility. Buyers generally hesitate to challenge the statements on official certificates. Buyers are naturally most critical as prices begin to weaken under increasing supplies. Therefore, when shippers are struggling to maintain an f.o.b. market and to resist actual or anticipated rejections they use this service freely.

On the other hand, if a crop is hopelessly large, prices unprofitable, margins unusually narrow, much of the crop going to market for sale on commission, and f.o.b. sales hard to negotiate at any price, neither grower nor commercial shipper feels that he can afford the added expense of the inspection fee. In short, it is the feeling of the industry that a crop may be too cheap to justify inspection. Thus a district which normally uses this service freely may in a surplus crop year leave it almost wholly unpatronized.

Second, the service may be left unused for exactly the opposite reason. In a year of abnormal scarcity in any section which is an important source of supply for even a short season, buyers will invade the field and bid for their supplies. Too often the buyer's competition takes the form of yielding a little to the grower in the matter of grade. He will offer the quoted price for No. 1 grade but will tell the grower that he does not need to grade too closely. Even local association managers have felt obliged to meet such competition by relaxing the enforcement of their standards. Dealers in the markets who have bought f.o.b. shipping point do not dare reject for failure to meet the grade if the goods can be passed along at a profit. They know that if they reject, the owner can have the goods sold for his account for as much or more than they have agreed to pay.

Under such conditions the certificate loses much of its value. The shipper says, "I can sell this stuff without inspection. Why should I pay $5 a car?" The buyer says, "I need this stuff for my trade and the supply is short. If I demand a certificate, my competitor will offer the same price without inspection and will get the car."

When unusual scarcity and high prices bring buyers to a district in unusual numbers, more of the goods sold f.o.b. are actually seen by the purchasers than in ordinary years. This diminishes the need for disinterested inspection at the shipping point.

Third, in many districts there occur periodical crop failures, especially of tree fruits, which furnish a large part of the tonnage inspected. A district which has utilized the services of many inspectors one year may need none the next because there is little or nothing to inspect.

Fourth, widespread crop damage from any cause which lowers the grade of the product may prompt a general cancellation of arrangements for inspection. Hail, drought, frost, insects, or disease may cause such a condition. Growers and shippers will not pay for certificates which uniformly tell them what the product *is not*. Any condition which leaves but a small part of a crop within the U. S. No. 1 grade, kills the demand for shipping-point inspection on that crop. Shippers will either consign the goods unsold or will sell on description, expecting to make liberal allowances in case of rejections. The least scrupulous shippers under such conditions may quote U. S. No. 1, hoping that the goods will be accepted, especially in small markets where they are not easily replaced. Such shippers expect to make allowances if rejections occur where terminal inspection can be obtained by the buyer. The shipper knows at the same time that he can get a certificate at the terminal if he needs it which will serve his purpose quite as well under the circumstances as would a certificate issued at the point of origin.

Cessation of all demand for shipping-point inspection has

occurred in the height of the shipping season in one of the largest strawberry districts in the country because drought reduced the quality of the berries below the requirements of the U. S. No. 1 grade while the demand remained good for fresh berries of any grade.

Fifth, a change of general marketing policy by the dominant shipping interests of any section from f.o.b. to consignment sales or vice versa profoundly affects the extent to which the use of this service is found profitable. Such changes are not instantaneous but they have been sufficiently pronounced within the short life of this service to affect profoundly the extent of its use in important producing centers.

Other conditions may affect the demand or lack of demand for this service, but the point to be made is that the effective organization and financing of this work is extremely difficult in any state where the season of inspection is short and the demand comes from the shippers of only a few crops, largely fruits. If each year's operations must be separately financed and no accumulated revolving fund is carried over from the good years, the service must almost inevitably break down. It is a service of immense value to the industry when needed but which should be allowed to accumulate surplus earnings in such years to supplement its income in the years when crop or market conditions will militate against its general use.

THE F.O.B. AUCTION

One of the most spectacular results of the early years of shipping-point inspection was the sudden appearance of the f.o.b. auction. This was a new idea in marketing and was wholly dependent on Federal inspection at the point of origin. In the second year of operation one company using this method of sale tried to use certificates issued by a private inspection agency but found that the business could not be continued on that basis.

The sensation created by the f.o.b. auctions was profound and for a time many thought that the industry was about to be revolutionized. After three years of operation through seasons of varying length it seems that the scheme is about to die. No one can be sure, however, that the defects which have brought disaster to the initial attempts will not be overcome when and if demand definitely overtakes the production of perishables. This method of marketing is discussed at this point because it is a product of the inspection service at shipping points. If it shall ever attain the important place in the industry which its initial success seemed to foreshadow, no record of the growth and effects of this service will be complete which ignores it. Furthermore, this service itself will then be assured a larger place in fruit and vegetable marketing than it has yet won.

The basis of the f.o.b. auction system is a certificate which will enable the buyer to bid with safety on goods which he has not seen. The certificates issued on different cars of the same commodity and even of the same grade must be descriptive and discriminating enough to enable buyers to determine the relative desirability of lots which are generally comparable. The joint Federal-state certificates meet this requirement.

The psychological basis of the auction itself is competition engendered between bidders in distant cities who do not see each other or the goods but who compete for the particular car offered at the moment according to their judgment of its value as indicated by the certificate. Bidding may occur between buyers in the same room, but that is not the characteristic and dominating situation in the typical day's work.

The mechanics of the f.o.b. auction involve a leased telegraphic connection between all auction rooms and the region of production; a telegrapher and auctioneer at each auction point; a catalog of cars to be offered, with a copy of the essential statements of the certificate issued on each car; an offering by catalog number of each car in turn by the

auctioneer at the main office whose offer is repeated simultaneously by the auctioneer in every other office; an announcement in every auction room of the highest bid made in any other with opportunity to raise the bid until all are done, when the car is announced sold in a specific city, the local auctioneer being responsible for a record of the purchaser.

In actual practice the car may be sold the day after it is loaded and while more than a week distant from most of the markets in which it is offered, or it may be offered on any intervening day before it arrives at the nearest auction point The place of loading and the number of days out are always shown on the catalog. The bidding is always an f.o.b. price at shipping point, the bidder knowing the freight to his own market.

This system makes possible prompt payment by telegraph for cars on their first day's journey toward market. It precludes the rolling to market of many cars which are destined to return less than freight. It seems to put a premium on intelligence in buying and on a discriminating interpretation of the language of a certificate in terms of market value. It secures quick action on large volume. One of these auctions sold a car a minute during some of its daily sales and expected to complete a sale of 50 cars within an hour.

Yet with all their desirable features their volume of business decreased rapidly after the second season, and the system seems in 1927 to be on the verge of complete discontinuance. Opinions differ as to the reasons for the failure of a plan which when launched threw the industry into a turmoil of excitement and threatened to upset much existing marketing machinery. Perhaps the whole affair is too recent to permit dispassionate analysis. Unfortunate attempts to keep up an appearance of volume appear to have played a part. Speculation in the auction rooms became rife.

Nobody has claimed that the failure of these auctions was due to any failure of the inspection service or of the certificates on which the auction catalogs were based.

THE FUTURE OF THE SERVICE

All of the inspection and market news work of the Department is conducted under items in appropriation acts. The authority is not permanent but is annually reenacted. No permanent legal responsibility rests upon any one for their continuance.

The opinion has been expressed repeatedly, both in and out of Congress, that these services have become so important that they should be authorized by permanent instead of by annual legislation. If this is done, the language of the permanent act may differ from present authority enough to change the whole future of the service.

If authority should be given the Federal Department of Agriculture to expand this work by reexpending its earnings, and to render those closely related services which the trade and the carriers associate with inspection, the future place of shipping-point inspection in the general field of marketing would be very different from that which it holds at present.

Few states have such permanence of personnel and policy as has the Federal service. Changing local administrations bring changing official attitudes toward service activities and toward cooperation with Federal authority. Already this service has been developed and then dropped in certain states because of changing official attitudes toward the work. The industry is naturally restive under such conditions and can give the service no permanent support in such states.

The trade becomes uneasy and tends to decrease its use of this service whenever there is even a suspicion of political or undue personal influence in the selection of the local employees whom the Federal Department is to train and license for the work. The extent to which all ground for such suspicion can be avoided will have much to do with the future of the service if present authority remains unchanged.

There is the constant possibility of a local breakdown in the service through state and Federal disagreement. The

state officials who are handling the funds from this work, employing the men and paying their salaries, know full well the limitations of the Federal Department. They realize that neither state nor Federal agencies are prepared to proceed alone. State certificates lack the confidence of distant buyers. The Federal Department has the authority to issue an acceptable certificate but lacks the money and the machinery outside the large terminals. Mutual dependence has usually overcome any tendency to impatience on the part of either.

If a truly serious disruption or suspension of service ever occurs in an important shipping state, where the certificates are the basis of a large volume of trading, Congress may feel disposed to make some other provision for the work which it has authorized. Judgments differ as to the wisest permanent course. The present legal situation precludes any extensive work in states which cannot operate revolving funds.

The Federal Department has several small revolving funds for specific activities, but Congress is generally opposed to the policy and has not allowed this work to be so financed. It is recognized that fixed annual appropriations cannot provide the elasticity of service which is desirable. A large contingent fund would be a constant temptation to extravagance. Some believe that a revolving fund, properly safeguarded, would be a constant stimulus to good management.

CAN A SERVICE MAKE ITSELF NEEDLESS?

Perhaps an optimistic view of the future of this industry would forecast such general adherence to the principles of sound standardization that official inspection will be less and less needed. For the most important centers of production such hopes do not seem beyond the bounds of reason. In districts where production is less concentrated and in new districts which may become important, such a goal is yet afar off.

As long as surpluses press for outlets we may expect multiplied efforts to reduce volume of movement by laws fixing high minimum standards of market quality. On their face such laws appear to reduce the need for commercial inspection at point of origin. In practice, however, the industry is using this service most freely in the states which have gone farthest in restricting the qualities of products which may legally be shipped.

In another chapter we have shown the reasons for believing that the trend of the industry is back toward the delivered sale. If this becomes more obvious, there is likely to be a decreasing use of shipping-point inspection in proportion to the total business done in most commodities. On the other hand, if consumption overtakes production more rapidly than now seems possible, this service may grow to twice its present proportions within three to five years.

Those who have been closest to the work realize that it has brought the meaning of real standardization home to thousands of growers and that conditions have been permanently improved in this respect. As an educational force it is likely to be less needed in the future than in the past.

The writer, while in charge of this activity, predicts that it will reach its height within 10 years from its inception and that thereafter a constantly increasing percentage of the whole body of shippers will responsibly guarantee their own grading and depend upon terminal inspection to adjust all differences of opinion with their customers. In other words, it is a part of the mission of the inspection service at point of origin to inspire the grower with greater confidence in the terminal inspection service. The results of hundreds of reinspections teach this lesson. The reversals of shipping-point inspections by reinspection on appeal in the markets amount to only about one car in each 2,000 originally inspected.

Thus the grower and shipper are learning that official inspection is essentially the same wherever obtained. If taken at time of loading, a fee is paid on each car. If taken

at destination, fees are paid only on those cars on which certificates are actually needed. With careful work at the packing shed only a small part of the total number of cars shipped will get into such trouble in the markets that a certificate will be valuable.

Broadly speaking, the better this work is done the faster the industry will be educated beyond the greatest need for it. It has always been well done and the education is progressing rapidly.

If buyers can buy on a delivered basis instead of f.o.b., they will not demand certificates, for they will depend upon terminal inspection when they challenge the quality of the delivery. We expect to see more terminal sales in proportion to the total business than we see now.

As the confidence of all shippers in all official inspection increases, they will be as ready to trust the inspectors in the terminals as those at their own stations.

As the whole industry settles down to more stable conditions of production, margins and handling charges should decrease in proportion to the value of the goods, and the cost of official inspection on all cars shipped will become relatively more burdensome. There is little hope of reducing it proportionately.

The fruit and vegetable industries have been profoundly influenced by this service, and this influence will be permanent, yet the service itself is not essential to the continued and permanent welfare of the trade. It may prove to be a transient phase of the general evolution of our system of marketing perishables.

There is no reason to assume that terminal inspection will ever become superfluous.

XV

EVOLUTION OF THE NATIONAL MARKET NEWS SERVICE

Building rather than evolution. The original concept. Growers' control of movement assumed. Early discoveries. Dealers' outlets. Loans. Diversions. Importance of shipment reports. Arrival reports. City dealers' interest. Helping grower through dealer. How building began. Official program outline. The first group of builders. First Market News reports. Distribution. First city market report, Chicago. Letter of May 11, 1915. Copy of report. Early telegraphic service. Experiments and discoveries. Code and leased wires. Shipment reports. Carrier cooperation. The 9 a.m. report. Most valuable type of service. Service through field stations. Here service most appreciated. Equalizing f.o.b. prices. The Laredo case. "Who is cutting prices?" A challenge accepted. Light better than darkness. Wider application of principle. Confidential apple sales report. Aiding distribution. Imperial Valley cantaloupes. Other experiments in progress. An educational center. Forty temporary stations per year. Service through permanent stations. Chicago potato report. Service to nearby producers. Service from long-season stations. Special statistical service. Long season southern stations. Florida, Texas, California. Relations with the press. Local papers. The trade papers. 1915 and 1927. Expansions of the service. Radio service. Limits of usefulness. Bases of price quotations. Many kinds of sales. Present-day field station reports. Sample from Fresno, California. Permanence of the service. Good treatment by Congress.

PERHAPS this chapter should be called the building rather than the evolution of our News Service for fruits and vegetables. There has been much of conscious building after careful planning in the organization of this work. Congress has neither amended its charter nor limited its scope as it has done with the Inspection Service. The amount appropriated was reduced after the World War, but the Department of Agriculture has been free to use its funds as it has deemed best. The type of organization, the character of its work, and the details of its program are what the Department has chosen to make them. The intensity with which the field has been covered has been dependent on the amount of money which Congress has seen fit to appropriate. This has been supplemented by many small contributions by

states, localities, or groups for special services which the Department could not have given without such help.

THE ORIGINAL CONCEPT

In Chapter X we have noted that the desire for some work of this kind was a dominant motive in the minds of those who were responsible for the organization of the Office of Markets. The idea then uppermost was that growers should have free telegraphic reports of market prices for perishables. Few imaginations seemed to picture a more extensive field of service, except that the reports might include the quantities on hand or arriving from day to day at the larger markets.

Perhaps no one who was responsible for the legislation had any idea of the extent to which the distribution of the commercial fruit crops was already in the hands of dealers or professional distributors. It is even less likely that they knew how largely the carload vegetable business was financed by the distributors under conditions which determined the market in which the products were to be sold.

In other words, everyone outside the dealer group, which was not consulted, pictured the movement of perishables to market as being within the growers' control. The ignorance of the grower was blamed for gluts and famines, which were then more of a reality than they are today.

EARLY DISCOVERIES

Early in the development of the work it was found that the problem was not as difficult as had been feared. The dealers were found to be largely in control of distribution. They were quick to appreciate and use the service as it advanced past the simple price-reporting stage. The smaller dealers and distributors welcomed reports from many markets which they could not afford to secure at private expense. A small budget for telegraph and telephone expense

could be made to result in much more business when expended in the light of the official reports of the supplies and current prices in a larger number of possible outlets. But the smaller dealers usually had fixed outlets for most of their goods. They had borrowed money either for their own operations or to finance production, and this money had come from city dealers who wanted to handle the goods. No matter what the market reports showed, a large part of the daily movement was bound to go to certain points. One of the first practical discoveries was that the reports did not cause any disastrous and wholesale shifting of supplies from city to city in an effort to hit a high market.

Nevertheless, distribution was measurably equalized. There was enough free tonnage rolling every day to fill the void in any market where prices were comparatively high. No serious dislocations of business occurred. Those who had been fearful of the results of official price quotations had failed to grasp the importance and use of the diversion privilege. If a relatively high price was shown on any morning in any one city, a few unsold cars which happened to be within a day's run were diverted to this market and the situation was met.

IMPORTANCE OF SHIPMENT REPORTS

A second early and important discovery was that all dealers were much more interested in reports of arrivals in markets and of shipments out of producing areas than in reports of prices. Many large dealers had their own sources of price information, but no one had any effective method of reporting arrivals. In a few markets it was done for short periods or for certain products. Even then no private agency could classify arrivals by states of origin nor secure from the carriers many of the details which dealers needed if marketing was to be wholly intelligent. There was no way to clear away the doubt when conflicting reports came from the markets as to the quantities arriving daily or on hand.

Many dealers in terminal markets were reluctant to see an official price report issued, as it gave the shipper a check against their accounts of sales. Some passive opposition developed, and everywhere in the markets there was a pronounced opinion that the dealers had less to gain by an official exchange of price reports between the large cities than they had to lose through the reporting of these prices to the farmers and shippers throughout the country. It was soon evident that the Government must give the dealers in the large markets something of value in return for their cooperation in giving the market reporter an accurate report of selling prices. The city dealer wanted reports or forecasts of the total volume of shipments out of producing districts. He wanted to know what prices were being paid f.o.b. at point of origin and he wanted an accurate report of arrivals in his own markets, including cars in outer yards, cars unloaded and released, and cars diverted.

HELPING THE GROWER THROUGH THE DEALER

The most important of the early discoveries was that relatively little could be done to help the average grower by direct means and that he must be helped through the dealer who handled his goods. General distribution of official market price reports taught the grower what he might reasonably expect for his crops. This improved his position in bargaining with the buyer. But the average grower knows little of traffic matters, knows no commission men except in the city nearest to him, and is not able to utilize the market reports as a guide in the actual shipment of his own produce. Market reports comfort him when they show that he is getting fair service and treatment from his buyer, his commission man, or the manager of his association. Probably the mental relief which these reports have brought to growers has been worth more than the added dollars which have come to growers' pockets through direct, individual action based upon them.

As a practical matter it was found that the service must be developed with a view to making it as useful as possible to the men who were actually handling the flow of fresh fruits and vegetables to the markets. Every phase of the service was thrown open to the grower, but it was soon realized that as a rule he could use it only by proxy. If the buyers, solicitors, exchange managers, and others operating in any shipping section operated with more confidence and in the light of common knowledge, risks and uncertainties were reduced and the grower must profit by the improvement in the general situation.

Necessity has thus dictated a policy in the building of this service which contemplates rendering every possible aid to the people who are actually in control of the goods during the process of marketing. No other program is defensible from the point of view of the general taxpayer and consumer who support the work. The producer, by an intelligent choice of sales agencies or by developing his own cooperative marketing association, can secure the full benefit of every improvement and economy which has resulted from the building of this service.

HOW BUILDING BEGAN

Some official machinery had been set up and some service rendered before the basic facts just outlined were discovered. The first experiments were not of large proportions. The use of some machinery which was soon discarded was also involved.

In March, 1915, Mr. Otto W. Schleussner, of New York, who more than any other one man pioneered in the field work of this service, visited 20 principal markets and secured the promise of the assistance of one reliable dealer or broker in each. These men were to send the Department a daily telegram reporting the prices of strawberries and in return were to receive telegraphic or mail reports from our contemplated field stations or from Washington.

In his report on this trip Mr. Schleussner said: "Seventy-five per cent of the people approached are sufficiently interested to be glad to pay the cost of our daily wire to them giving information from shipping points."

On April 6, 1915, the writer submitted a report to the Chief of the Office of Markets and Rural Organization, outlining the plans for the actual initiation of the work, in part as follows:

UNITED STATES DEPARTMENT OF AGRICULTURE

Office of Markets and Rural Organization
Washington, D. C.

April 6, 1915

PROGRAM OF WORK FOR THE MARKET SURVEY FORCE
MEMORANDUM FOR MR. BRAND

DEAR MR. BRAND:

My tentative plan for the immediate future is to have Mr. Schleussner proceed to Louisiana by the time strawberry shipments have reached important proportions, and to remain in the shipping territory at least until the height of the season has passed. I understand from his correspondence that he believes a man on the ground can keep track of diversions as well as shipments, since all diversions are ordered from the shipping end, and that through him we shall be able to forecast with fair accuracy the probable arrivals each day on each of the important markets.

I plan that Mr. Schleussner shall, at the same time, act as our mouthpiece, receiving the daily summary of the wires which we get from the various markets, but I am also inclined to think that he should have a copy of each of these wires direct. In other words, I think that each of our correspondents should be asked to file two addresses with the daily wire, so that one will reach Mr. Schleussner at the same time that the other reaches this office. We shall thus be able to determine exactly how much time is consumed in assembling and combining information in this office, and Mr. Schleussner will be able to tell us how well we have succeeded in conveying all the necessary information in a single wire.

I think that on the way to Louisiana Mr. Schleussner might profitably stop in the Carolina territory to line up our sources of information as he has already done in Louisiana. He might stop in the north Alabama territory if time permits.

I am planning to send with him on this trip Mr. Peterson and Mr. Klein, in order that they may see just what connections are practicable and desirable in the producing territory, just what is promised, and just what negotiations are necessary to put us in satisfactory touch with the situation, and to make sure that our service will get back to all the people who really wish it. My idea is that after visiting the two producing areas with Mr. Schleussner, it might be wise for them to go into Louisiana to see how the machinery works when the crop is actually moving.

After a very few days of this education, they should separate and visit as rapidly as possible all the other important strawberry shipping districts south of the Ohio River, and including the Ozarks. It might be wise to keep them continuously on this work until all the strawberry territory has been covered, or it may seem best, after reaching the Ohio River, to turn back and begin a similar line-up of tomato and peach shippers in the South, especially if by that time the success of our market news service seems assured.

Mr. Schleussner is of the opinion that one man should be stationed in Chicago during the shipping period for Louisiana strawberries, as the Chicago market receives such a very large proportion of the production of this area. I am planning to assign Mr. Collins to that work.

It is to be expected that the arrangements which we have made for market news will prove unsatisfactory in one or more of the 20 markets which Mr. Schleussner has lined up, and it is believed that the whole of the time of one man may well be spent in visiting these markets, satisfying himself that the information we are receiving is complete, fair, and unprejudiced, and lining up additional sources of information where they are needed. It is altogether likely that as the season progresses it will be found that other shipping sections will wish market news from other cities, such as Louisville, Kentucky; Springfield, Illinois; Toledo, Ohio, and so on, so that I think Mr. Gail's time will be pretty fully occupied. It is also probable that as soon as the Carolina crop begins to move it will be as desirable to station a man in New York City as it is to station one in Chicago for the Louisiana crop. I am tentatively planning to give Mr. Gail this assignment when the time is ripe.

Since I can never be sure that any particular hour of my own time can be given exclusively to the handling of the telegraphic information which we will receive and send out, I am expecting to keep Mr. Fisher in the office for the time being in order that

this most important work may have the first attention of a man who has both the office and the field viewpoint.

I feel rather strongly that in view of the large amount of work done on cantaloupes last year, we should endeavor to extend our market news service to this crop. This will probably mean that Mr. Schleussner, or another thoroughly competent man, should be stationed in the Imperial Valley during the movement of the cantaloupe crop of that section.

I should be glad to have your approval of this program so far at least as it relates to the immediate disposition of the persons now available. Very truly yours,

(*signed*) WELLS A. SHERMAN
Specialist in Market Surveys

The members of the staff above named were:

John Welton Fisher, Jr., of Wisconsin
James Homer Collins, of Arkansas
Adelbert Dexter Gail, Jr., of New York
Raymond Maynard Peterson, of Minnesota
James P. Klein, of Missouri

To the devotion and enthusiasm of this group of young men, led by Mr. Schleussner, the country owes the initial success of a tremendously important economic experiment.

During April, 1915, the first reports were issued at Hammond, Louisiana, on the movement and prices of strawberries. They were simply typed and but few copies could be prepared each day. The files of the Department do not contain one copy of the reports of that first station.

A bulletin board was put up at the hotel and a copy of the report posted as soon as compiled. By April 22, Mr. Schleussner wrote, "Our bulletin board is consulted by every buyer in Hammond now." On April 26 he reported that a copy was sent daily to be bulletined at a neighboring shipping point and that buyers were calling him up by telephone for the market news.

The work was popular in producing districts from the start, but in the cities it was opposed or disapproved by some dealers, tolerated with good-natured indifference by others, and heartily approved by only the most enlightened.

As rapidly as possible the voluntary reporters were replaced by salaried Federal employees. Under these conditions and with little of real value to offer the dealers in return, the official reporters had to develop a technique of market reporting.

The Department believed that if the workmen were of the right type and caliber the structure would be useful and was willing to build slowly. Every step was new. There were no precedents. There was no trained personnel in private employ upon which to draw. Certain trade papers had reported markets for years, but in no case were methods in use which the Department could adopt and defend as worthy of official sanction and public acceptance.

The earliest market report from the field on file in the Department was sent from Chicago, May 11, 1915, with an accompanying letter which shows graphically the need for accurate reports of shipments and the impression they created almost from the start. The service was less than a month old when the following letter was written.

UNITED STATES DEPARTMENT OF AGRICULTURE

Office of Markets and Rural Organization
Washington, D. C.

Chicago, Ill.
May 11, 1915

Mr. Wells A. Sherman
Office of Markets
Washington, D. C.

DEAR MR. SHERMAN:

They say that only fools never change their minds, and I want to confess that I am beginning to change mine. While Louisiana alone was supplying this market with berries it appeared that our information was superfluous, inasmuch as the trade here had just as accurate and much earlier information than we had. With the advent of Tennessee and other important shipping districts into the game, however, the complexion of things is changing here. While strawberry dealers had accurate information a week ago, they are beginning to grope now.

I really believe that the information I have been able to give the trade the past two days has justified my stay here. Our

Tennessee reports have constituted the only comprehensive information obtainable. Our report of 141 cars shipped from Tennessee on Monday has had a rather paralyzing effect. Dealers here can hardly believe it, and have been asking me if I were sure of my figures. I can only reply that I am confident they are essentially correct.

As a direct result of our Tennessee news, Fox & Godding are preparing to divert two of their cars from Chicago, Crutchfield, Woolfolk & Clore expect to divert several cars, as do also Shafton, Zulfer, and Peter Fox, while other operators are laying their plans accordingly. I wish to urge that our information from Tennessee and Arkansas be kept as complete and accurate as possible. If you could get them to give you the number of cars billed to Chicago each day it would be a great help. All the dealers today wanted to know how many of those Tennessee cars were billed Chicago.

I am enclosing a copy of a report I am putting out daily. About a dozen copies are posted conspicuously in the stores of the principal strawberry men here, so that they are available for anyone wishing to see them. As the small dealers all attend sales in these stores they can see our reports, if they wish. However, as I said before, the small men look on our reports with indifference, as they get little or no benefit from them. I may say that the dealers here take very kindly to these reports. Am keeping a close eye on retail prices.

Very truly yours,

(*signed*) J. H. Collins

United States Department of Agriculture

Office of Markets and Rural Organization
Washington, D. C.

Chicago, Ill.
May 11, 1915

Markets

Strawberries

Louisiana

Monday Shipments—85 cars (express 23, freight 62). Chicago—48 cars. F.o.b. prices, pints seventy to eighty-five, quarts one sixty to one eighty. Quality fair.

Mississippi

Monday Shipments—7 cars (one sold at one ninety, rest rolling).

ARKANSAS

Monday Shipments—48 cars. F.o.b. prices, Judsonia one seventy five, Horatio two dollars.

TENNESSEE

Monday Shipments—141 cars (entire state).
From western Tennessee 112 cars (f.o.b. prices, two two fifteen). From eastern Tennessee 29 cars (Chattanooga prices, one eighty).

CAROLINAS

Monday Shipments—22 cars (express 9, freight 13).
Note—43 freight and 4 express passed Potomac Yards Monday, bound north.

TODAY'S RECEIPTS AT MARKETS

St. Louis—61 cars. Pints ninety to dollar ten, quarts two to two ten. Fair demand.
Buffalo—6 cars (4 Louisiana, 1 Tennessee, 1 Carolina). Prices, Louisiana, pints dollar dollar quarter, quarts one fifty two quarter; Tennessee, two quarter; Carolina, two seventy five.
St. Paul—4 cars (2 Louisiana, 1 Tennessee, 1 Arkansas). Pints one fifty, quarts two fifty. Fair demand.
Pittsburgh—3 cars (2 Louisiana, 1 Carolina). Prices, Louisiana, three; Carolina, two to four fifty.
Boston—18 cars (2 Louisiana, 16 Carolina). Prices, seven to sixteen.
New York—27 cars. Prices, nine to fourteen. Poor, slow.
Philadelphia—10 cars. Prices, ten to twelve. Good demand.
Detroit—4 cars. Pints one quarter, quarts two two fifty. Active.
Des Moines—Prices, pints one fifty seventy, quarts two seventy five.

Notice that in Boston, New York, and Philadelphia the wholesale price was quoted in cents per quart box.

Contrast this simple report with one issued in 1927 for a single product, as shown near the end of this chapter.

EARLY TELEGRAPHIC SERVICE

Repeated experiments were tried the first year to learn the quickest method of getting reports from several cities

assembled at a distant country shipping point. All reports were entitled to Government rates and to certain preference in transmission. It seemed that direct telegrams from each market to the shipping point should result in the earliest possible compilation of a report. By having duplicate messages filed by each market reporter to Washington, D. C., and to the field station, it was found that Washington could consolidate, edit, and transmit a complete report and deliver it in Hammond, Louisiana, more quickly than the field man could prepare it from the direct wires.

This unexpected condition was found to be due to the quicker transmission of Government messages to and from Washington than between other points and to the fact that small field stations were likely to be served by only one wire on which a number of unusually long telegrams with many figures caused congestion and delay. Preferred service could be given to a single, long, market-reporting message from Washington at a given hour each day, but could not be given to a series of similar wires from different sources filed at varying hours daily.

Necessity thus led to the clearing of all reports through Washington and to the invention of a five-letter code to decrease the length of telegrams. With the very rapid growth of the service it soon proved economical to lease a wire system connecting all the larger city stations with Washington and to employ telegraphers to man it for the transmission of market news reports exclusively.

Thus it was the early discovery of the inability of the telegraph companies to assemble quickly at remote country points a number of difficult messages from different sources, which led directly to the leasing of the most extensive telegraphic facilities controlled by any patron of the Western Union Telegraph Company, with the exception of those leased by the Associated Press. This maximum development came in the third year of the news service. The leased wire is still the facility which enables the Department to dominate the market news field.

SHIPMENT REPORTS

The fruit and vegetable industries are fortunate in that the Bureau of Markets had on its staff several experienced railroad men who were soon giving most of their time to the problem of securing accurate reports of car loadings throughout the country and of arrivals and unloads in the cities where new offices were maintained. It was assumed at first that a record of cars loaded would be of relatively little use unless the destinations of the shipments could be shown. The experience of the first season proved that the destinations given at the time of shipment were not conclusive evidence as to where the cars would go. The extent of the use of the privilege of diversion en route had not been appreciated.

Work with the carriers soon resolved itself into an effort to build up a complete system of daily telegraphic reports of all cars loaded with the major fruits and vegetables regardless of destination, to be reported by each carrier, by specific products and by states of origin. This system was not yet perfected when the railroads came under Federal administration during the war, but substantial progress had been made through the voluntary cooperation of the carriers.

Another service, by no means as simple as it sounds, was to secure accurate reports by telephone at a given hour each morning from each railroad entering the larger cities, of the number of cars of each fruit and vegetable received for unloading in that city during the preceding 24 hours, with the states of origin. A system was finally perfected by which these reports are made on the call of the local Market News Office at the beginning of the day.

These complete reports of shipments, made by each carrier every night, are accumulated, consolidated, and prepared for release in Washington, D.C., during the night and early morning and are ready for the public about 9:00 a.m., Eastern time. As this system of reporting has approached

perfection, the marketing agencies of the country have placed an ever increasing value on the service. City dealer and country trader alike look to the Department of Agriculture for this information which the carriers would not and could not furnish to any private agency.

By common consent the reasonable approach to accuracy with which the movement of perishables is now reported constitutes the greatest aid to the industry which the Government has been able to render in connection with any of its information services. With accurate reports of the total movement of any perishable, coupled with comparable, official records of market prices, the industry is gradually establishing its own deadlines for total shipments. Experience is rapidly teaching what volume of shipments forecasts "red ink" returns. The records of shipments and of receipts in the larger markets are the outstanding accomplishments of the News Service.

SERVICE THROUGH FIELD STATIONS

The news work of the Department won its way to favor rather slowly with the city dealers, for at first it had little to give in return for what it asked. In producing districts it was loudly acclaimed from the start. Calls for the aid of temporary news stations came from more shipping areas than could be supplied. The official market reports had a steadying effect on the producing public. For the first time many of the growers felt that they knew when dealers were telling the truth about the markets. No doubt many were surprised to find how generally truthful the dealers' reports of low prices had been.

As the number of field stations increased and two or more served competing areas shipping the same crop, an exchange of reports between them became important. Each wanted daily reports of the number of cars loaded in the other and especially wished to know what prices were being paid locally.

It was found that dealers in distant cities were also keenly interested in f.o.b. prices in shipping areas. This was a point on which they had always been given some misinformation. Shippers attempting to make long-distance sales by wire were suspected of exaggerating the activity of the local market and the prices at which everything loaded was being taken. Thus the city dealer began to realize that the Government could aid him in his business and give a service of value in return for his courtesy in reporting his sales.

But throughout the history of this work the country station has been the source of its strength. Statements so flattering as to seem extravagant have been made by Congressmen and others as to the immense monetary value of these stations to specific localities. In fact, the keenest rivalry has developed between adjacent towns in a shipping district over the exact location of the Government office. It is the demands from shipping districts for extended services which have secured liberal treatment of this activity at the hands of Congress.

But the issuance of reports of shipments and prices has proved to be only a basic function of the Market News Field Station. Some secondary services have at times almost eclipsed these original purposes and have had a striking effect on the marketing of large quantities of perishables.

EQUALIZING F.O.B. PRICES

It was often almost as difficult to get a satisfactory picture of the prices being paid at the shipping point as of those paid in city markets. Sometimes both buyers and sellers were on the ground, and when the Federal representative could compare their reports of purchases and sales a fairly accurate range of prices could be established. Often, however, there was little buying by dealers on the spot, but many sales were made on wire orders, "f.o.b., usual terms," which means that title passes when the car rolls and at a

stipulated price, but that the draft is not actually paid until the goods have been inspected at destination, by the purchaser. The market news man is naturally handicapped in making an accurate report under such circumstances. In fact, so much misinformation was given for the purpose of influencing the report that the Bureau soon issued a rule that no quotations should be accepted from any dealer or shipper who would not give the reporter periodic access to his telegrams or sales records.

An incident which developed in the second year of the service at the field station operated temporarily at Laredo, Texas, during the onion season has been of far-reaching importance. The daily price reports from the markets were comprehensive and fairly accurate. They were awaited by an eager group of shippers who assembled at the Bureau office at the hour of release. There was a feeling of demoralization in the group because everyone thought that his competitors were cutting prices needlessly. It was certainly becoming more difficult daily to make sales by wire unless new price concessions were made. Under such circumstances the distant city buyer frequently has been known to reply to an offer by saying: "Your competitors offer same goods quarter less per crate. Will take car at that price." Diligent inquiry often fails to locate the man who has offered any goods at the lower price. Suspicion then points in many directions. Who is cutting prices and how far? Who has bought from growers at a price which will justify such cuts? Is somebody selling short at lower prices, betting on a further decline to enable him to cover his sales at a profit? These and similar questions had excited much ill feeling in the dealer group at Laredo.

One day as the market news reports were handed out and commented upon, someone remarked: "These reports are fine. They tell us what our onions are worth everywhere except in Laredo. I would like to see a report which would tell what they are worth here. Every time I think I know, my customers tell me I am wrong and that my competitors

are selling for less. The next minute I meet my competitor on the street and he accuses me of cutting prices."

The Bureau representative Mr. Schleussner, volunteered: "Well, that can be done. If each of you shippers will sign an order on the telegraph company to show me copies of all your wires, I will go there tomorrow forenoon and draw off records of every confirmed sale, paying no attention to offers or options. I will tabulate these confirmed sales by grade and price and put the range of confirmed prices on this sheet tomorrow."

This was a challenge to a new use of the disinterested services of the Government. To the credit of the challenger and of the group it was accepted and the order signed.

Examination of the telegrams showed that sales had been confirmed with a rather wide range of prices. The difference between the highest and lowest prices paid f.o.b. Laredo on that one day had been about 30 cents per bushel crate for onions of the same variety and grade. The difference was largely a matter of salesmanship.

Issuance of that report had an immediate effect. The man who had sold at the lowest price knew it. Perhaps no one else did, yet he resolved not to be the lowest man tomorrow. If a prospective customer wired. "Am offered No. 1 at $1.20." He could reply: "None sold here yesterday under $1.30," and be sure of his ground.

The second day's f.o.b. report showed the range of prices narrowed by about 5 cents, the third day another closing in of the extremes of 5 cents. This went on until the range between the high and low prices on similar cars was narrowed to about 10 cents, a difference justified by differences in size of orders, risk of rejection, and so forth. Public knowledge of what was being paid changed the psychology of the whole situation. Dealers grew more confident of the market, and the downward trend of prices was checked. No man could now accuse his neighbor of secret price cutting. Good-fellowship took the place of suspicion and bitterness. A new guide board had been erected on the road toward

better marketing. Light had been found better than darkness.

Within a week or two the peak of shipments was reached, and dealers were uncertain as to the prospect of rising prices. Some enterprising chap secretly offered several cars for shipment several days later at an advance of about 30 cents a crate over prevailing prices. He found a dealer in a northern city who suspected that prices were about due for a rise and who confirmed an order for 4 cars. The next day this sale appeared on the market report—a sale for shipment on Wednesday of next week at an advance of 30 cents a crate. It created immediate excitement and started every dealer on a mission of education among his customers to convince them that prices were advancing. Prices rose daily, and by the time those cars actually rolled they went at the general f.o.b. price level. In other words, the psychological effect of that unusual sale, which normally would have been guarded as a secret, was to bring the market level promptly up to the mark which it set. Everybody got the benefit of the better price which the market was ready to pay when the shipping group had the confidence necessary to demand it.

Accurate and comprehensive f.o.b. price reports have since become a distinctive feature of the market news work. They are published in the city markets simultaneously with their appearance at the field station. It is rumored that they have rendered needless and unprofitable a class of misleading telegrams which too frequently passed between dealers at the ends of the line.

WIDER APPLICATION OF THE PRINCIPLE

The use of the Federal Market News man as recipient of information which when tabulated is valuable to the industry, yet must be held confidential in its details, has taken many forms. A most striking example is the application of the idea to the apple marketing of the Pacific Northwest.

The Spokane Market News office is here made the confidante of the industry. Every shipper of importance throughout the entire area reports regularly and promptly, by mail, on prepared forms, all his consummated transactions, whether spot or future sales. The report is by variety, size, and grade, with all essential details of the transaction.

These reports are tabulated and the summary mailed back to every cooperating dealer. They show every shipper a picture of the composite mind of the group who are selling apples from Wenatchee, Yakima, Walla Walla, Hood River, Payette, and every other important district. Every man sees how his sales compare with what others have been able to get for similar apples. The net result is to keep the minds of dealers very closely together and to hold sales of like qualities of fruit within a narrow range of prices.

Periodical visits are made by the Federal representative to check the books of every dealer to see that all sales are reported and that the reports are correct. In fact, the reports are given by many dealers only on condition that this check be made of the accuracy of all reports received. This confidential service is probably worth vastly more to the apple industry of the Northwest than are the reports of prices in eastern markets. Its stabilizing influence is hard to overestimate in view of what we have learned about the psychology of marketing.

AIDING DISTRIBUTION

Another striking outgrowth of the temporary market news field station has been a coordinated effort among shippers to apportion shipments to the markets in proportion to their consuming capacity. There are only a few districts which dominate the markets during their season in which it is practicable to get the distributors together for concerted action.

The distribution of cantaloupes from the Imperial Valley of California was for many years controlled by a relatively

small group, each member of which was present or responsibly represented in a single county from which the entire cantaloupe supply of the country moved for several weeks each season. Here were conditions favorable to coordinated action. Furthermore, almost the entire crop was consigned. The distributors had well-established connections in all the larger markets. Competition for the business in these centers was keen. A consignment to a small market was dangerous because a competitor might place a car in the same town at the same time to the certain disaster of both.

For years the Federal Market News office at Brawley was a place of daily meeting where the "intended destinations" of the cars to be loaded that day were charted and shown by the Federal representative who had been furnished by each shipper, in confidence, a statement of his expected loadings and intended destinations. The prospective distribution of the day's shipments was compared with the consuming capacity of each market, as estimated by the group in the light of the experience of former years. Each shipper revised his own program in the light of the assembled facts. The changes were by public announcement—"Change one from Kansas City to Memphis"; "Change one from New York to Washington"; and so on, until no one cared to change any of his cars to less crowded markets. Then the meeting adjourned.

This scheme received much current publicity and was indeed something new in the marketing of perishables. Nothing quite like it has been found practicable elsewhere. The public listing of every city to which a car of cantaloupes was sent, stimulated the search for additional carload markets until the number reached 390.

The increase in the number of distributors and the invasion of the region by cash buyers as the production grew, made it increasingly difficult to regulate distribution through the daily open meeting, and the plan was discontinued in 1927.

Meantime the men in charge of several other field sta-

tions have aided directly in effecting better distribution. Notably in the distribution of Georgia peaches, where conferences of distributors have been held from day to day in an effort to avoid overloading the larger markets.

Up to the season of 1927 these efforts to make the official news office a center from which a definite control of distribution could be effected have been only partially successful. This is primarily due to the distances between the various operators whose shipments should be coordinated.

Broadly speaking the evening-out of distribution and the equalizing of pressure in nearly all markets is brought about by the constant picture of the total movement which is kept before the country, supplemented with daily reports of arrivals and cars on hand in all large terminals.

The work at field stations has nevertheless shown that there are still substantial improvements to be made in present methods through more coordinated action. The industry is now busily experimenting with machinery to accomplish these ends. In most of these, some adaptation of the market news field station plays an important part.

AN EDUCATIONAL CENTER

The field station is a center from which the commercial producing area which it serves receives an education such as was impossible before this service was begun. Since 1916 the daily reports have been mailed free to all who can show that they have a legitimate interest in them. Day by day they give a picture of the marketing of the particular crop in which the region is just then vitally interested. The rate of movement, the supplies in all markets, the prices of the local product and of others sold in competition in the great centers, the comparative shipments from competing areas, the f.o.b. prices paid elsewhere and at home, the relative progress of the season as compared with former years, the prospects for greater or less volume out of competing territory, the effects of weather both on market demand and on

the progress of moving the crop, are all brought home to the intelligent grower, the local bank, the local buyer, and all others interested in the most important perishable products of the region.

Unquestionably there are many more students of marketing now in the industry than ever before, and there is much more for them to study. The summary issued by the field station is a complete statistical history of the crop in the locality, with its price history in the markets. The figures cover a longer period year by year and grow increasingly valuable as a guide in planning the disposition of the crop.

As at present conducted (1927) the Federal program contemplates the operation of at least 40 of these temporary stations per year. They range from perhaps only 4 weeks of service in some strawberry districts to stations operating about 8 months in the larger winter potato-shipping areas. In stations of the latter class the frequent issuance of comparative statistics on movement and prices in recent years and on the progress of the movement from other sources of winter supply is of far greater service to the industry than are similar reports in connection with a crop like strawberries or peaches which must move day by day as nature matures them regardless of what has happened in former years.

Thus there is being built up in all the principal shipping areas a body of local knowledge concerning the place of the local product in the industry as a whole. There is a better knowledge of what must be expected under any given set of crop and market conditions and a better appreciation than formerly of what it is reasonable to expect of a marketing agency. All this is having a salutary and a stabilizing influence on the industry as a whole.

SERVICE THROUGH PERMANENT STATIONS

As already noted the permanent stations located in the larger markets made their way slowly into the confidence

and appreciation of the local trade. Their maintenance was essential to any service of value to the producing districts, and if the markets were to be reported accurately the city dealers must be willing to give accurate reports of their sales. The service has therefore been diligent in its efforts to increase its usefulness in the terminal markets.

The institution of leased wire service in 1917 did much to change the attitude of the city trade. The Department was then able to issue more price news from other markets than dealers could secure for themselves and with greater promptness. The consistent accuracy of the official reports was also a source of wonder and increasing satisfaction.

Daily detailed reports of what was happening in the chief shipping centers has made it possible for city dealers to operate with reduced hazards while as already noted the daily reports of shipments from every nook and corner of the land have gone far toward putting the merchandising of some crops on a new basis.

As railroads have grown more willing to accept the official reports as establishing the market value of goods for purposes of adjusting claims the dealers have been increasingly willing to help make them accurate. The city trade now looks to the files of the Government market reports as the official and authoritative record of prices on any product which was among those reported at any past date.

Several city stations issue a special local report on nearby products, with estimated arrivals by truck and a long list of jobbing prices on products not included at the time in the Federal reports issued from Washington but which are of local importance.

Several prepare special statistical reviews of the receipts and prices of specific products in current seasons as compared with former years. The trade often appears to place a high value on such analyses, as few dealers have the time or training to work out the facts for themselves. They may be quick, however, to grasp the significance of the figures when presented.

The daily potato price quotation from Chicago is now awaited throughout the West as a basis for each day's trading. Chicago is the largest potato market in the world, and the report of carload sales on the Chicago "potato tracks" has an influence similar to the opening prices on hogs and steers in the Chicago stockyards. This is not so true when the bulk of supplies is moving northward but holds good through the much longer period when the main crop of the northern tier of states is moving south, and east.

This report is as highly valued in other great potato markets like Minneapolis and Kansas City as in the country districts. It is based upon an accurate knowledge of more carload transactions than come under the eye of any one dealer. It commands a confidence which no report from any private source could hope to enjoy. It is therefore a steadying force in the whole potato market of the country, marking one of the far-reaching improvements in marketing which has been accomplished without noise or spectacular display. Because of the completeness of its reports, each city station renders a service to all the other cities on its leased wire circuit which is of growing value to the trade in perishables.

SERVICE TO NEARBY PRODUCERS

Each city station gives to the nearby districts of heavy production a special service on the crop of major importance in each, closely comparable to that of a temporary field station. The Philadelphia office gives such a special service to the potato regions east of Chesapeake Bay and in New Jersey. The Kansas City office does the same for the potato growers in the Kaw Valley of Kansas. Other city stations have given special service to nearby berry growers and fruit districts.

Commission men in some cities now use the official reports of prices as the price list sent to their country shippers when soliciting consignments or as friendly informa-

tion on prevailing prices. The prices quoted in the market reports are those for jobbing lots, or the first sales after the car is broken. These are the units most closely comparable to the lots which nearby producers send in for sale on commission. The acceptance of the official price quotation by both dealer and shipper, as showing about what the small consignor should expect for his goods of like variety and grade, has done much to bring about better feeling between them, another steadying influence in the marketing of perishable crops.

SERVICE FROM LONG-SEASON STATIONS

In a number of districts the shipping season for one crop or for a group of related crops is so long that Federal Market News stations are maintained for the greater part of the year. Strategic points in such districts are Presque Isle, Maine; Grand Rapids, Michigan; Waupaca, Wisconsin; and Idaho Falls, Idaho. At each of these potato centers news offices are maintained through the fall and winter months and sometimes well into the spring. A similar station at Rochester, New York, serves the shippers of apples, cabbage, onions, and so forth, as well as of potatoes.

These stations become the distribution centers for all the statistical and price information in existence for the products with which they deal. They are also the source of authentic information to the world concerning what goes on in the marketing of the crop from their districts. There is time for more basic educational work than in a station which serves a quick-moving crop like strawberries, peaches, or tomatoes. In these long-season shipping areas, where most of the shipping is from stored stocks, there are many resident local dealers who have permanent interests in the community. They have built storages, established outlets for considerable quantities of produce, have permanent if modest business equipment and organization, have established credit, and are an integral part of the industry upon

which the community is most dependent. These dealers could not possibly obtain in any other way the intimate knowledge of the conditions in their industry which comes to them through these news stations. It goes far toward putting them on an equality with the nation-wide operators with whom they must compete, equality at least as to their knowledge of the actual situation in all competing territory, the rate of movement of the crop to all important centers, prices and terms of sale in all important sources of supply. In the case of apples they are given export movement and foreign price reports in addition.

This strengthening of the position of the established local dealer in the staples of the region is another steadying influence on the marketing of our most important vegetable and fruit crops.

LONG-SEASON SOUTHERN STATIONS

The movement of the citrous crops of Florida begins in September and ends usually in May. Many competitive agencies share the duty and privilege of marketing this crop. No effective coordination of their activities has yet been accomplished, but most of them contribute to the support of a Citrous League which represents a fairly well united industry in traffic and rate matters.

Through the Citrous League a substantial contribution is made to help defray the expense of a market news office the chief function of which is to secure reports of loadings, and the diversions out of certain "gateway" railroad points. Price information plays a minor part because most of the citrous fruit is sold under private or association brands rather than on official grades. Comparative prices for different brands mean little to the man who has not seen the fruit. However, this news station is a point of assembly and dissemination for all the marketing information which it is practicable to secure on the Florida orange and grapefruit crops under conditions existing up to 1927. There are

indications that it is contributing toward the bringing in of a new era in the distribution of Florida citrous fruits.

The other long-season station in the South is in the Lower Rio Grande Valley in Texas. Here a succession of vegetables move from a concentrated area of production from December until well into May or June. The closing date for carload shipments depends largely upon the weather in any given season. The recent development of a green corn and tomato shipping business has a tendency to prolong the average length of the season.

This station has not operated every year but has now enlisted financial support from the state and the local industry, which proves the esteem in which it is held. Its service aids simultaneously or in succession in marketing a large number of vegetable crops, while an important citrous industry is developing rapidly in the same vicinity.

The Los Angeles office, which is permanent, serves in like manner the growers and shippers of a succession of vegetable crops from southern California.

RELATIONS WITH THE PRESS

In the early days of the service it received little attention or aid from the newspapers of the large cities. There were several reasons. At first it covered so few crops and reported each through such a short season that the editors of market pages felt that they could not use it as a substitute for the reports on fruits and vegetables which they were carrying. The official reports were also too detailed and occupied too much space per crop. Finally, the Government would give no one paper preferential treatment and there could be no claim of exclusiveness in presenting such market reports to their readers.

Another influence, potent in not a few cases, was the opposition of some easy going gentleman on the force who had for years reported the market for his paper by making a few daily calls upon friends on Produce Row from whom he

obtained without arduous labor the information concerning stocks and prices which they desired to have him publish. Although such market reports were common enough as late as 1916, the student of today is likely to look for them in vain. They belong to an era which has passed out quietly and rapidly under the steady light of free official information.

In country districts the local papers gave prominence to the reports or gave the work extended notice and urged their readers to apply for places on the mailing list. Local dailies usually carried all the essentials of the daily reports. The appreciation of the work by local papers has increased with the passing years, and their use of these reports is yearly more extensive.

The larger papers in which space is more valuable have come more slowly to a similar appreciation. Some ignored the reports for years because they were mimeographed and sent to a free mailing list. This direct circulation of the reports "killed the copy" for their use.

Gradually, and often by the preparation of special condensed reports suited to a given space and delivered at a fixed hour daily, the greater part of the city press has been won over to the idea of official market reports to the exclusion of all others in the field which they cover. The typical newspaper market reporter of 1915 seems to have been gathered to his fathers or has been given a more useful job.

ATTITUDE OF THE TRADE PRESS

The weekly publications which cater to the fresh fruit and vegetable trade still feature their own market letters, and there are a few publications which do their own market reporting, usually on special products. The papers of this group as a whole showed little enthusiasm over this service during its infancy. There was a feeling that the Government was invading a field of private enterprise. No one could compete with the Government in doing anything

which it undertook. Private enterprise must be limited to that part of the field which the Federal service chose to leave to it. Naturally the trade papers which specialized in market information were apprehensive.

But as the news service has covered the country more and more thoroughly and has issued more frequent and complete summaries of the marketing of special crops from important localities, the trade press has become its cordial ally. Extracts from and reprints of official forecasts, reports, and summaries often comprise a large part of the reading matter in the trade papers. The personnel of the service and the changes in assignments of men, both in the news and inspection services, are recorded with a care which proves how intimately the trade feels itself affected by every plan and purpose of these official groups.

A comparison of the best trade papers of 1915 with those of today furnishes a most striking evidence of the revolutionary influence which Governmental services have had on the industry. The technical or trade paper gives its subscribers valuable information which they can get nowhere else in such convenient form. Judged by this standard, the activities of the various agencies of the Department of Agriculture, and chiefly those of the Bureau of Agricultural Economics, are by far the most important of all the factors which affect the business life of the dealers in fruits and vegetables.

Proof of this need not rest alone on the space given to official reports and activities. The editorial treatment of these reports and the spirit of dependence upon and of good will toward the services of Government are quite as convincing. We can cite no other instance in which so great an industry has been so profoundly redirected in many of its most important aspects through the services of Government unmixed with the exercise of regulatory powers. Let anyone who may think that this is an extreme statement compare carefully the trade press of today with that of 12 years ago.

EXPANSIONS OF THE SERVICE

The market news service in its many forms and ramifications seems capable of indefinite expansion. The public demands upon it have never been fully met except during the war period, when the sale of food crops was easy. There is an almost unlimited field for helpful service in the producing districts. Only the most important are now served by temporary field stations. In many of the smaller shipping centers the need of the individual grower or operator is quite as great.

With a fixed appropriation the Bureau of Agricultural Economics can employ only so many men and operate only so many stations. Stations which have been operated for years are deemed to have a moral right to continued or repeated service. New districts coming into equal or greater prominence demand like service and offer to help support it.

State departments of agriculture or marketing often contribute to the support of special local work which could not otherwise be financed. The amount of such support changes from year to year, but for several years past most of the field stations have been financed in part by state or local funds. In some cases states have added to the forces in city offices for the special purpose of preparing special material for the press which is of value to the nearby territory. The major expenses of the work, the leased wire, general telegraphic, and technical salary expenses cannot well be shared by the Department of Agriculture with any other agency. The smaller items of expense borne by cooperating states and commercial interests make possible a slowly expanding program of total service rendered.

Occasionally Congress makes additions to the appropriation to provide for specific extensions of the leased wire system or the opening of a new permanent office. Eventually a material extension of the leased wire system is almost inevitable, to include some of the largest cities in the country not now reached. So far as can now be seen, the

building of this service has reached the point where it needs only a moderate extension and a little further embellishment to enable it to meet every present need.

RADIO SERVICE

The radio has been used constantly since it became available as a means of dissemination. At least two states—Missouri and Wisconsin—have through their Departments of Agriculture and Markets established sending stations through which the whole state is reached. The chief purpose and program of these stations is the sending of market reports to all classes of farmers. Blanks are sent to farmers who wish to take down the reports. These are ruled with columns and side-headings. The items of the report are read in a specified order. Instructions are furnished by the state as to how the prices and numbers announced are to be entered on the prepared sheet so that the result shall be a completely tabulated market report.

Probably 90% of all fruit and vegetable shippers in the United States can now get a summary of the markets by radio. Livestock and grain farmers probably use it more systematically, as the reports on those products are less complicated and voluminous. A fruit or vegetable report must be detailed as to many kinds of crops, several varieties within some kinds, and several grades within some varieties.

Excellent cooperation has from the beginning been given by a great many broadcasting stations most of which have been glad to have at least one item a day which might be of money value to some of their listeners-in.

Radio broadcasts can never take the place of a detailed printed or mimeographed report for the dealer or shipper who is using this service as a guide in his daily operations. The very wealth of detail which is the despair of the market editor of the daily paper is exactly what the business man needs. Slight differences in supply, price, or market trend must usually determine his action. General statements that

prices rule 25 cents per barrel or box higher or lower than yesterday may be of vital interest to him but furnish no basis for discriminating action. He needs the details if the service is to guide him in locating the areas in which to concentrate his sales effort.

The radio aids tremendously in the spread of general intelligence on market supplies and prices. It can be made to take the place of a written report for certain products by the use of fixed forms. This scheme cannot be made successful in sending a report in which the products and classes or grades vary from day to day. Any irregularity which results in a report which does not fit the form is fatal. Therefore, the radio is likely to remain simply an auxiliary means of publicity for the Federal News Service on fruits and vegetables.

THE BASES OF PRICE QUOTATION

The jobbing price, or "first sale after car is broken," has from the first been the quoted price for the city market. But when there is a volume of trading in car lots large enough to establish an average carload price the trade everywhere is anxious to have this price reported. Then, too, some products are almost always sold as car lots on arrival, especially watermelons, which are also usually bought as carloads from the grower. The potato quotations of several larger markets are almost exclusively for car lots.

Much cabbage moves in bulk and is sold and quoted by the ton, whether sold in full cars or less. Wine grapes are also sold chiefly in carloads. Wherever the carload price can be quoted, it is done.

At shipping points there are many different kinds of sales, and a rather elaborate set of quotations is sometimes necessary to tell the whole story. At a single small station shipping watermelons or cabbage there may be each of the following:

1. Buyers may have cars placed for loading and may buy wagonloads from individual growers for cash to fill them. This gives us a price, "Wagonloads, cash to growers."

2. On the same railroad siding, larger growers may be loading full cars of their own. These may be sold to the local dealers as, "Carloads, cash on track."

3. The dealers may then offer their cars by wire on *(a)* "f.o.b. usual terms," or they will take a little less if sold, *(b)* "f.o.b. shipping point acceptance, sight draft attached to bill of lading." There may be a third carload price, differing a little from either of the others, in which there is a bank guaranty of payment on arrival unless the goods fall below contract.

In some districts and for some rather highly perishable products carload f.o.b. prices may be higher for cars forwarded by express than for others of like grade going by freight on the same day. The difference in price adds to the difference in total cost to the buyer, who must pay also the difference between express and freight rates, but this willingness to do so indicates his opinion of the probable rapidity of market decline or the rapidity of movement and strength of present demand in his market. In either case it is important price news.

The successful operator of a temporary field station must be able to get the facts and give the industry a true picture of what is going on with a correct range of prices under the various methods of sale, yet without betraying anyone's private business.

PRESENT-DAY FIELD STATION REPORTS

It is not practicable to reproduce on less than four pages of this volume a facsimile of one of the more elaborate daily reports now issued by field stations. The following reproduction (Table 4) of less than one-fourth of the report issued at Fresno, California, on grapes alone on September 27, 1927, shows the tabular statement of the grape move-

ment for the country as a whole, and for the last ten days in detail, as it was kept daily before the shipping public. "Black" means black grapes for juice purposes. "Table" includes varieties usually sold on fruit stands and in grocery stores. "White" includes all light-colored varieties and grades not packed for sale as table stock and therefore destined to be crushed.

Table 4

Market News Service

United States Department of Agriculture
California Department of Agriculture Cooperating

Fresno, Calif. Room D, Sequoia Hotel
Tuesday, September 27, 1927 Grapes No. 48 Telephone 3-1828
Carload Shipments of Grapes on Dates Designated (Subject to Correction)

September	16	17	18	19	20	21	22	23	24	25	26	To Date
California												
Northern Black	216	254	200	232	268	365	387	407	393	271	179	4,819
" Table	166	197	87	111	142	177	139	190	171	48	26	3,098
" White	...	...	...	...	...	...	21	...	...	..1	1	28
" Canner	1	3	2	...	...	...	...	...	...	...	...	6
Central Black	309	317	219	246	349	406	398	421	383	243	164	7,597
" Table	136	128	76	75	122	149	149	154	120	61	60	7,358
" White	253	280	174	231	409	549	526	531	354	162	130	5,428
Southern Black	63	62	8	46	56	44	56	46	46	9	27	1,211
" Table	3	1	1	2	4	1	3	1	1	1	3	719†
" White	3	4	..	1	2	3	8	7	8	2	6	86
Total California	1,150	1,246	767	944	1,352	1,694	1,687	1,757	1,476	798	596	30,350
Arkansas	.	..	..	..	..	..	..	..	..	..	..	111
Delaware	3	3	..	3	1	4	4	3	3	..	..	44
Illinois	..	..	..	..	..	..	..	..	..	..	..	11
Idaho	..	..	..	..	..	1	..	..	1	..	..	4
Iowa	8	7	..	3	..	9	3	..	1	..	1	157
Kansas	..	..	..	..	..	..	..	..	..	..	..	112
Maryland E. S.	..	..	..	..	..	..	1	..	..	..	..	1
Michigan	6	4	..	4	7	22	29	45	53	2	55	271
Missouri	..	..	..	..	..	..	..	..	..	..	..	93
Nebraska	1	1	..	1	..	1	1	1	..	..	..	65
New York	3	6	..	3	4	8	11	7	10	..	6‡	86
Pennsylvania	..	1	..	..	1	..	1	1	..	..	..	4
Utah	..	..	..	..	..	1	..	2	1	..	..	4
Washington	2	6	..	10	8	10	16	9	14	..	16	114
Others	..	..	..	..	..	..	..	..	..	..	..	101
Total U. S.	1,173	1,274	767	968	1,373	1,750	1,753	1,825	1,559	800	674	31,528
Calif. Last Year	1,170	982	1,022	571	682	734	756	831	827	872	504	34,077
Calif. 1925	1,455	1,516	1,506	1,504	937	1,192	1,442	1,535	1,587	1,625	1,666	34,300

†Includes 370 Imperial Valley
‡Includes 2 boats

Shipping Point Information for Monday, September 26
Fresno, California, and Nearby Points Warm. Clear. Table Stock, demand and trading very light. Very few sales. Market steady. Juice Stock, demand and trading rather slow. Market about steady, slightly weaker undertone on Zinfandels and Alicantes. Carloads f.o.b. cash track, lugs and crts. Thompsons very few sales 60-70c, lugs mostly 60-65c; crts. Malagas very few sales 65-70c. Bulk per ton including lugs, Alicantes 62.50-72.50, mostly 65-67.50, occasional sale lidded and labeled high as 75.00; Carignanes 62.50-67.50; Mataros very few sales 65.00; Muscats 32.50-35.00, some shipments on contract higher, many shipments for delivered sales and on contract, some consigned; Petite Sirahs few 65.00; Zinfandels mostly around 60-62.50; Thompsons very few sales 30.00; Grenache few 50-60.00; Malvoise very few sales 57.50.

The division of the state into Northern, Central, and Southern is in accordance with the understanding of the shipping trade.

The purpose of the cumulative totals is to indicate to shippers the extent to which eastern demands for grapes for various uses may have been satisfied already. The danger in this industry is that the market may suddenly be found saturated, with large quantities of grapes rolling which must sell for less than handling and shipping costs.

The f.o.b. prices at Fresno are of interest to shippers in all other parts of the state, as well as to buyers in the East.

The successful operator of a temporary field station must be able to get the facts and give the industry a true picture of what is going on with a correct range of prices under the various methods of sale, yet without betraying any private business.

Then follow the reports of arrivals, unloads, and cars on track in 19 principal markets with a wealth of detail as to varieties and price ranges on each. The following report for Jersey City is given as a sample of the list.

JERSEY CITY—265 cars sold. Market slightly weaker on blacks, about steady on whites. 112,000 lugs Alicantes best 2.02½-27½, ordinary 1.52½-90, common 1.42½-50, ave. 1.69; 14,115 lugs Carignanes 1.35-57½, one car 1.92½, ave. 1.50; 65,765 lugs Muscats best 1.15-35, ordinary 1-1.12½, common 92½-95, ave. 1.08; 53,175 lugs Zinfandels best 1.60-77½, ordinary, 1.32½-52½, common 1.25-30, ave. 1.43; 13,290 lugs Mataros 1.45-60, ave. 1.54; 9,925 lugs mixed black 1.32½-60, ave. 1.47; 3,740 lugs Malvoise 1.50-52½, ave. 1.51; 2,080 lugs Petite Sirahs 1.90-92½, ave. 1.91; 1,580 lugs Missions 1.25-40, ave. 1.31; 1,170 lugs Grenache, 1.22½; 1,040 lugs Grand Noir 1.45; 945 lugs Bergers 1.12½.

The student or general reader having no money at stake in the grape market would soon weary of wading through such detail for 19 cities. The shipper with several cars already east of the Rockies, unsold, rolling, and with final destinations undetermined feels differently. This detail of

the exact quantity of each variety sold during the day with a specific and detailed schedule of prices is an aid to marketing the value of which can hardly be measured.

PERMANENT PLACE OF THE SERVICE

There is no reason to hope or fear that this work will ever be abandoned by the Government. Congress has never authorized it by specific special enactment in permanent legislation. Yet it is plainly authorized in the language under which the original Office of Markets was organized. When making the first specific appropriation for this work, Congress realized that if it proved a success it must become as fixed a part of the services of Government as is the Weather Bureau.

The history of the item in the annual appropriation bills which have provided for this work is interesting. It is hardly too much to say that it is the one item in the entire budget of the Bureau of Agricultural Economics for which there is the most continuous, outspoken, popular support, the item which Congress is least likely to reduce and the one it has most frequently increased of its own motion.

The extent to which the marketing of fruits and vegetables has been stabilized and improved by the many forms of this service can be appreciated only by those whose experience with the industry in its wider aspects extends back to 1913 or earlier. Most of the men in the trade are too busy to appraise accurately the contrasting conditions of then and now. Few students or teachers are close enough to the struggle of the market place and the mind and heart of the trader to appreciate fully what has taken place. The writer has perhaps been too close to the whole situation to be a dispassionate judge of the importance of the advances made and of the reforms accomplished or under way. The hope that the intimacy of this contact has developed a point of view which may be of use or interest to others is one of the excuses for this volume.

XVI

EVOLUTION OF TRANSPORTATION SERVICE

A unique problem. American vs. Foreign conditions. Changes in American conditions. Intricacy of transportation. Competition for long hauls. Indirect routings. Fictitious or development rates. Settlers' needs. Railroad needs. Readjustments. Other promotion work. Louisiana strawberries. Handling methods. Railroad agricultural agents. Marketing aids. Evolution of carrier service. Railroad administration. Traffic and yard problems. Car loading. Terminal facilities. Striking examples. Auctions. Terminal difficulties. Improvement inevitable. New service to shippers. Railroad packing sheds. Car shortages and car pooling. A great forward step. Incomplete coordination. Routing, claims. Government inspection.

THE place of the refrigerator car and the supreme importance of the general introduction of artificial ice as factors in modern marketing have been discussed. There are other phases of transportation which are important. Some of them have profoundly influenced marketing. Some are responsible for apparently illogical developments. Some are passing and some appear to be permanent. Certain policies of some railroad companies have had a marked effect in developing or retarding the industry on their lines. The present attitude of most carriers leaves little to be desired, and some of the steps leading to this situation are worth tracing.

A UNIQUE PROBLEM

American conditions are not duplicated nor even approached in the distribution of the fruits and vegetables from any other part of the world. Nowhere else does any region of intensified production attempt to spread its goods evenly over a continental area and make them conveniently available to 110,000,000 people. There are specific cases of long-distance shipments. Fruits and some vegetables

and cut flowers from the coasts of the Mediterranean Sea are sold in England in large quantities. South African and Canadian fruits also reach Great Britain, but these are cases in which exporting dealers are seeking and supplying specific markets. Most of these goods arriving in England are sold in the ports to dealers who resell as distributors in interior towns.

Nowhere else is there so large and widespread a population as in America speaking the same language and with no restrictions on internal commerce. If Russia and China be thought of as exceptions the reply is that the lack of internal transportation acts as a most effective restriction on trade and precludes any general long-distance movement of perishables.

The American seems to feel that it is his natural right to send anything which he produces to any market in the country. If he cannot do so he is aggrieved.

The whole course of railroad history and development in this country has tended to encourage this feeling. Land grants were given the early western roads in order that there might be quick and efficient interchange of goods between the interior and the coasts and later between coast and coast.

The service which has been asked of our railroads since ice became available all along their lines is such as no other carriers have ever been asked to undertake. To meet the situation has required experimentation and pioneering by the roads just as truly as by the growers. Competition has sometimes helped the situation and sometimes has had less fortunate results.

When the roads were built there was no traffic in perishables awaiting them. The work of developing and serving the country did not then contemplate the moving of fruits and vegetables across the continent. We sometimes forget that most of our railroads now handle a very different business from that which was at first anticipated and that they have been compelled to change constantly from one style

of equipment and service to another. In some cases the original sources of revenue have in a large part disappeared. Many lumber roads must now depend on other products of the soil, and roads built to haul ores have been obliged to rely on something else when the vein was exhausted.

As a result of these difficult and changing conditions, which were basically due to the newness of the country, all railroads have not served all shippers or all industries equally well. We still have the strong and the weak roads, dependent largely on the development of the territories they serve. We also have some which are favored over their competitors by fruit and vegetable shippers because of better terminal facilities or locations in certain cities. In other cases one road may have an advantage as to one class of freight and another road serving the same territory may have an equal advantage with reference to another kind. Private ownership has insured the perpetuation of some differences in policy as between roads or systems such as could not exist in a country in which the roads were owned and operated by the Government.

Most of the railroads built in other parts of the world have been of two classes. One class has connected and served centers of population already established and with industries considerably developed. The other class has been built to bring raw products from an inaccessible interior to deep water for ocean shipment. American roads were originally chiefly in the latter class but have been largely changed over into the other type by the rapidity of the growth of the country.

Finally we have a consuming population able to buy what it wants to eat and educated to expect to have almost every product of every part of the land on sale in every other part. The fluidity of our population has contributed to this mental attitude. The New Englander who elects to remove to Los Angeles expects to be able to buy cranberries from Cape Cod in his new home and to be served in the restaurants with pies made from New England blueberries. He

expects the same in Miami or Seattle and he is not disappointed. That carriers and dealers both desire to cater to this demand goes without saying, but the intricacy of the whole transportation problem is not often realized by a public which has allowed itself to think too largely in terms of freight rates.

COMPETITION FOR LONG HAULS

It is natural and inevitable that the railroad company should wish to haul as much freight as possible from one end of its line to the other. Of the freight originating on its line it wants the longest haul possible before turning it over to another line. In the earlier days of railroading rates and routings are believed to have been made with the end in view of forcing the patron to give the originating road the long haul and the largest possible revenue.

On much of the freight hauled in those days time was not so important an element as it is on much of the business of today. Indirect routings, planned to give the entire haul to the originating line and its allies, were common. In fact, the doctrine that every car of freight should move over the shortest railroad mileage from point of origin to destination has never been accepted by our carriers as a whole. The Railroad Administration operated the roads with an approach to that ideal. The public still enjoys some of the benefits of the changes which it made in this direction.

When perishables began to move in carloads and under refrigeration the business was at first confined to hauls between points on the same road or system, or special arrangements were made for specific routings. The cars for this business were at first privately owned, and the roads did not attempt to provide equipment for this traffic until it had grown to considerable proportions. When such cars were built or bought by the roads there was some reluctance to allow them to leave the rails of the owners for any length of time.

When the roads were put under a degree of regulation and it became necessary that rates be defensible, rank discriminations and penalty rates had to be abandoned, but the urgency of securing or maintaining the long haul was perhaps greater than ever. The total length of haul might still be made longer than necessary in order that the originating line might turn the product over to a particular connecting line with which it had an especially advantageous division of the total charge.

In the era of greatest activity in railroad building the typical project extended from a city of some importance out into the more thinly settled country west or south. The population and industries which grew up along its line found their trading center at the eastern or northern terminus of their road. Rates and schedules made this inevitable.

Many of these conditions have had their influence on the development of the fruit and vegetable industries. A few instances will be noted.

FICTITIOUS OR DEVELOPMENT RATES

When the railroad builders opened up a new country they had usually been preceded by at least some settlers, miners, cattlemen, or other pioneers who had something to ship. But the settlers who followed the road needed houses and equipment of all kinds so that in many cases the outbound freight far exceeded that available for the eastern haul. In fact, until relatively recent years the volume of freight offered for shipment to the Pacific Coast was about three tons for every two tons offered for shipment eastward.

Such conditions wherever they existed tended to induce the railroads to offer very low rates for tonnage moving from the newly settled area. Railroad men frankly admitted that the business was so complicated that no one knew what it cost to move any particular traffic. If trains were regularly carrying empty cars in one direction the problem was to get them filled. It is not strange that in

many cases rates seem to have been fixed without any careful determination as to the possibility of maintaining them when the time came that all traffic must bear its fair share of the expense of operation. Some terrific shocks have been felt when the inevitable readjustment of charges came.

The present plight of the vegetable industries on the Pacific Coast is an example. They assumed importance as sources of supply for eastern markets only in the years immediately preceding the last general increase of rates. Now the industry faces the fact that with the present cost of marketing, especially of transportation, these vegetables are a luxury in the East when they are hardly returning a living to the grower. Apparently the industry can live only so long as the East continues very prosperous and able to indulge largely in the purchase of table luxuries.

The desire for a long haul and the need for return loads from their thinly settled areas, combined to prompt the roads to encourage the planting of fruit and truck no matter how distant from market. Unfortunately the original rates no longer prevail and these long-distance shippers now find themselves facing an ever-increasing competition yet compelled to accept an added marketing cost which may limit very seriously the amount which their eastern customers can afford to buy.

The present situation justifies a suspicion that the low rates enjoyed in the earlier days were a serious misfortune for many districts now shipping perishables. Changes in rates have increased many of the costs of production as well as the actual charge on the perishables themselves. When an industry has been established those dependent upon it naturally feel that they have a right to its continuance. They resent a change in conditions controlled by others if it jeopardizes their business or creates a new condition to which they cannot adapt themselves. Such is the plight of the fruit or truck grower who finds the costs of his business suddenly increased to the point where his customers decrease

their purchases, or at least put his products on their luxury list.

Fortunately what has happened hardly can be repeated. Little new country remains to be reached by railroads, and there is little likelihood that any road will ever again offer a rate on new perishable business lower than experience has shown to be justified.

OTHER PROMOTION WORK BY CARRIERS

Many carriers have within the past 30 years taken an active part in promoting new industries and in general colonization work. Roads which were at first largely dependent on forest products were much concerned over the fate and future of the cutover lands. The Illinois Central Railroad succeeded in establishing several colonies of settlers of various nationalities in the cutover pine district of Louisiana and developed a unique strawberry industry.

In settling this region the road promoted a series of colonies, largely Italian, but with a German settlement, a Hungarian, and possibly some of other nationalities in the same general district. The region was exploited on the basis of the strawberry. The methods followed gave a desirable product. The road gave a rate to Chicago which caused much of the early production to seek that market.

The railroad is to be credited with the origination of the industry on a commercial scale, but its early policy as to rates, placing of diversion orders, and other matters affecting the routing of berries over other lines, made Chicago for many years the distributing center for this Louisiana product. It is only within recent years that any considerable number of cars have gone to eastern markets otherwise than via Chicago. A glance at the map will show how illogical such a system of distribution appears.

The berries grown in this district are its chief money crop. The foreign settlers brought with them habits of painstaking hand labor. They put up a pack which usually

carried well and were the earliest shippers each season of solid cars of crated berries. (Florida's winter and early spring shipments are in refrigeration chests and go by express.)

To escape the necessity of dealing through Chicago, buyers from eastern markets began to spend the berry season in Louisiana as early as 1913. Some no doubt went earlier. The competition for the berries has resulted in the establishment of a local night auction at Hammond, Louisiana, at which the cars loaded each day are sold by car number to the highest bidder. The buyers spend the day visiting various loading points to satisfy themselves as to how the stock at one compares with that at others and on these impressions the bidding of the evening is based. The cars are sold rolling but in time to allow diversion at any point desired. Sales may be made during the day, the price to be determined by the auction several hours later.

The whole course of the development of this important strawberry industry has been determined by the policies adopted by the railroad on which it originated. It is an excellent example of the influence of a carrier on the marketing of an important perishable crop. Furnishing empty cars to receive the berries has been only one item in a comprehensive scheme of development, guidance, and, to a degree, exploitation.

Almost coincident with the organization of the county agent system of cooperative demonstration work by the Department of Agriculture many railroads added to their staffs agricultural agents and a little later marketing agents. This was an earnest move by the railroads to increase the prosperity of their patrons and deserves all praise. It was indicative of the new day in the public relationships of the carriers.

Among these men the tendency was almost universal to try to induce the production of more fruits and vegetables. The diversification of crops was being preached in every cotton or grain-growing region, and the easiest and quickest

way to diversify was to plant a truck crop. The agricultural agents of the railroads were therefore generally truck crop promoters. Since the orchard industry is so much more stable than trucking, they were glad to promote fruit growing wherever successful orchards could be developed.

The railroads sometimes attempted to aid in marketing these perishables or in finding markets for them. The St. Louis and San Francisco Railroad, for example, listed for the information of buyers and solicitors all the points on its lines at which shipments of peaches would originate. It also listed all the towns on its lines in which carload lots of peaches could be sold or distributed, making a consistent effort to aid in marketing the product of its grower patrons while securing for itself the longest possible haul in each case.

This effort to help the grower find a market for his perishable crops was probably the most systematic and extensive undertaken by any railroad, but served as a model for other lines, several of which developed their own special types of activity. The carriers could not long compete with the extension forces in demonstration work in crop production and naturally turned their attention to the business phases of the farmers' activities. They, therefore, became advisers on preparation and packing for market and on finding outlets.

EVOLUTION OF CARRIER SERVICE

The difficulties first felt in meeting the necessities of the new industry lay in the inefficiency of the early types of refrigerator cars and in the time required to move the goods. Experimentation in car construction was constant. Both public and private agencies participated. When the railroads began to take over private car lines and to accept responsibility for furnishing refrigerator service, some competition developed in the construction of high-efficiency cars.

The Railroad Administration, however, must be credited

with a major influence in setting the standard of efficiency which has since been accepted in the building of refrigerator cars. The Railroad Administration found many refrigerators in service which were such in name only. They were tight box cars with ice bunkers, but with almost no insulating material in walls or roof. Official experiments showed a shocking difference in efficiency between these cars and those of the best construction. The pooling of refrigerator equipment under Government operation brought the new and old cars into competition and subjected them to a closer comparison than had been practicable under prior management. Shippers were thus educated to recognize and demand efficient equipment. The relatively large orders placed by the Government for modern cars set the pace for most of the later construction. Many old cars have been retired or rebuilt. Re-icing stations are provided at such intervals that the bunkers should never be empty. The problem of maintaining reasonably low temperatures seems to have been met.

The problem of faster movement has been bound up in the whole struggle by the roads to meet the increasing demands for service of all kinds. There has been a tremendous increase in the size and capacity of locomotives to haul heavier trains and to make faster runs. With the heavier engine have come the larger car and the heavier rail.

A few years before the World War railroad men were saying that the most difficult problem was no longer to get the trains moved over the rails, but to get them handled through the yards. Switching and yardage facilities providing for short trains of light cars were quite inadequate for the breaking up and making up of the longer and heavier trains.

With the heavier train came a greater shock in switching and in making up trains. With this increase in the severity of the shocks incident to normal handling came the need for much greater care in loading. Loss and damage claims became a serious matter both to the carriers and to their

patrons. It was necessary to increase the efficiency of some packages and to provide a system of rigid stripping and bracing of the load. Proper carloading became much more of an art than it had been in the days of smaller cars and lighter trains.

This particular phase of carrier service is still far from satisfactory solution. Everybody agrees that there is too much shifting of loads in transit and too much breaking of packages. As a whole it seems fair to say that the carriers have not developed a technique for handling their heavy equipment in yards and terminals which is as efficient as the equipment itself. Incidentally it seems well-nigh impossible so to load and brace the usual types of fruit and vegetable containers that they will stand such shocks as the modern refrigerator car can withstand.

TERMINAL FACILITIES

There is but a limited competition between the carriers for most of the carload tonnage of fruits and vegetables at point of shipment. In most cases one railroad is so much more convenient than any other for the shipper that he is hardly conscious of exercising any choice. In many cases two roads are equally convenient, and in a few cases more than two, and the competition for business may be keen. Usually, however, one road will have a measurable advantage in some respect which makes it the chief carrier of the perishable crops from any one point.

The situation is very different in the terminals. Many railroads enter most of our large cities. The shipper who has no choice of carriers at point of origin has a choice of many widely separated points of delivery in such markets as Chicago, St. Louis and the metropolitan district of New York. While he must order his car from and give the initial haul to a certain road he may specify delivery in the final market by any one of a dozen or twenty roads. Evidently, then, there is a fertile field for competition by the roads

in the character and location of the terminal facilities which they offer in the various large markets which they reach. In many cases these facilities determine the place and importance of the particular railroad in the marketing of fruits and vegetables. A great number of examples might be cited, but a few will illustrate the point.

The Pennsylvania Railroad and the Baltimore & Ohio are competing lines between the Potomac River and New York City. Their passenger time schedules are practically the same. Yet the Pennsylvania Railroad carries most of the southern fruits and vegetables from Potomac Yards to New York because it has superior marketing space and facilities on its piers on Manhattan Island. On the other hand, the Baltimore & Ohio has a somewhat similar advantage over the Pennsylvania Railroad in the delivery of all fruits sold at auction in Philadelphia.

The Erie Railroad, running between New York and Chicago, does not pretend to compete with either the New York Central or the Pennsylvania in the speed or luxury of its passenger service, but it is preeminently the carrier of Pacific Coast fruits from Chicago to New York City because of the location of its Manhattan piers and the auction facilities which it there maintains. Other carriers which originate the business say that the Erie can drive hard bargains with them because the Erie has the terminal facilities which their shippers must use.

The location of the fruit auction on the tracks of any railroad will give that line a monopoly of the final handling of all cars of fruit sold through the auction. Thus the Wabash gets a share of the revenue derived from every car of fruit sold through the auction in St. Louis, no matter what road brings it to the city. Since the Wabash is to have the final haul it is easy for its agents to persuade shippers so to route the cars that they will be turned over to the Wabash for the longest possible part of the journey.

Texas onions are not sold at auction, but many are sold in St. Louis on the tracks of the Missouri Pacific or "to

arrive" via that road. This is a survival of the days of group alliances and affiliations among railroads. These onions originate at the Mexican border and chiefly on the International and Great Northern Railroad, originally known as a Gould line. From the beginning of the industry it has turned them over to the Texas and Pacific, another Gould line, which in turn has passed them on to the Missouri Pacific, which has suceeded in holding most of the cars bound for the North and East on its rails as far as St. Louis.

The tremendous growth of American cities in recent decades and their increasing use of fruits and vegetables from a distance has tended to make the problem of terminal facilities and terminal handling the most difficult which the railroads now face in their attempt to render efficient service to the shippers of these perishables. The roads complain of the frequent and persistent delays in unloading cars and releasing equipment. The shippers complain of the frequency of embargoes. Receivers complain of cars held too long in outer yards before being placed for unloading. Evidently, in the face of these conditions the railroad which can provide sufficient terminal trackage, conveniently located for the produce trade, with good yard service, can offer telling inducements in its competition for this business.

The carriers are awake to this situation, and it is in this field that the evolutionary changes in carrier service to the industry are now most marked. A single instance will illustrate what is happening and how quickly the industry responds to the offer of improved terminal facilities.

The New York, Chicago, and St. Louis railroad, known as the "Nickel Plate," was until very recently an almost negligible factor in the delivery of fruits and vegetables in Cleveland, Ohio. It had a small amount of team track yardage on high ground near the produce market, but its main yards were in low ground further away and offering little if any advantage over the yards of other roads as a delivery point for perishables. Recently the road has begun to acquire additional ground and expand its delivery yards

or team tracks nearest to the produce markets and actively to solicit this class of business on the basis of its convenient and expanding terminal facilities. The response has been immediate. Its deliveries of fruits and vegetables have been multiplied several times over. The volume offered in 1926 exceeded the capacity of its improved facilities. Plans are now under way to acquire much additional property adjoining its yards for a greater produce terminal.

So much of the total volume of the carload movement of produce is now bought f.o.b. shipping point or rolling that the receiving trade in the markets has quite as much to say about routings and delivery points as have the shippers. The receivers have thus become very largely the determiners of the place which many railroads shall hold in the industry. Their interest is largely in the facilities which the road can give them on the arrival of the goods, for they have come to expect standard service in transit from any company which handles the car.

Under these circumstances it seems but reasonable to expect that the most notable changes and improvement in railroad service which we shall see in the near future will be in their better terminal facilities and in the better service which they will give in connection with deliveries. The roads are generally anxious to get their shares of the fresh fruit and vegetable business. The revenue per car handled is higher than from most other freight, and while some railroad men say this revenue is deceptive because so much of it is lost in the payment of claims for loss and damage, yet there is a marked tendency to compete for the business in every practicable way.

Studies of the handling of food products in city terminals and of their distribution in the great centers of population now demand the attention of economists, legislators, the distributing trade, and the carriers. Just how much of the responsibility for reconstruction and improvement should be borne by the carriers may be a question, but it is reasonable to anticipate that competition for the business will

drive them to considerable expenditures for these purposes. The alternative would seem to lie in the building of union produce terminals, possibly constructed and owned by local corporations, in which the carriers may own nothing but trackage.

NEW SERVICE AT SHIPPING POINTS

The carriers usually have been active in providing the facilities needed to handle their business in perishable crops at point of origin. They have seldom failed to provide enough ice for every important crop movement. Usually they have not been asked to provide special buildings for their shippers, for either the organized growers or the dealers have been quick to locate packing sheds, precooling plants, and storages adjacent to the right-of-way.

There has recently been a notable departure from the usual procedure by both the Great Northern and Northern Pacific railroads. A promising head lettuce industry has developed in the region of heavy rainfall just east of Puget Sound. Carload shipments grew from 3 cars in 1918 to 1,039 in 1923. Serious difficulty was experienced in carrying this lettuce in good condition to the cities on the Great Lakes and further east. Shipments fell off to 781 cars in 1925. Large-scale cooperation did not develop promptly among the growers, and there was some misgiving as to the permanence of the industry.

The carriers evidently wished to cultivate this business which gave them a long eastward haul at a time when the apple movement was light. In order to encourage the best possible handling of the lettuce and to start it on its journey with the least likelihood that a damage claim would be filed, these carriers have each built two packing sheds or houses of the most modern type. These they rented to the shippers for the 1926 season, thus providing better facilities for preparing the lettuce for shipment than the industry had dared to provide for itself. It will be interesting to note the extent to which this precedent is followed.

CAR SHORTAGES AND CAR POOLING

The growing fruit and vegetable industries of many localities have suffered severe losses from periodic failure of the carriers to furnish enough refrigerator cars. The original tendency was for each railroad or refrigerator car line to keep its cars in the territory in which it was directly interested and to insist on the prompt return of its equipment when necessary to allow it to go on other rails. Reference has been made to the widely differing efficiency of the refrigerator cars of different types and dates of construction which were in use when the Railway Administration came into being. Some roads using poor equipment naturally did not care to bring the better cars of other roads into their own producing regions.

Pooling of refrigerator cars by the carriers had been little more than a gesture up to the time the Government took over railway operation. It then became a reality. The retirement of the least efficient types then became inevitable. The Government started the process by the type of new equipment it ordered. The roads were compelled to go forward with the replacement program when operation was again resumed by the owners. With fairly comparable equipment on all lines the selfish objections to car pooling have been largely removed.

The pooling of special types of cars under the direction of the car service division of the American Railway Association is one of the most forward steps taken by the carriers within a generation. After the successful movement of the unprecedented grape crops of 1925 and 1926 in California and of peaches in 1926 from Georgia it seems unlikely that car shortages will again deprive shippers of fruits and vegetables of an opportunity to move their crops. It seems not too much to hope that the good work started by the Railway Administration has resulted in the permanent solution of this particular marketing problem.

During the season of 1926 the car service division main-

tained a special office in California throughout the grape season exclusively to deal with problems of car supply and car distribution. Under existing arrangements the control over refrigerator car distribution by the American Railway Association is well-nigh absolute. Cars belonging to any road can be ordered to another part of the country at the discretion of the association, which maintains permanent offices in Washington, D. C., in close touch with governmental forecasting agencies and all other sources of information as to prospective local needs.

INCOMPLETE COORDINATION

The splendid evolution in service which has given the country a pooled reservoir of refrigerator cars has not been matched in some other phases of transportation service. Shippers of fruits and vegetables who do a nation-wide business find it desirable, often necessary, to maintain their own traffic specialists. The railroad cannot be trusted to give the car the most direct and advantageous routing. This is one of the undesirable results of the competition which so many still consider an essential to efficient service.

The freight rate structure is highly complex. Technical, not to say expert, knowledge is necessary if extensive shippers who have need to divert cars en route, to use storage-in-transit privileges, and to take advantage of other services and options offered by the roads are to know what obligations they are incurring or when they are overcharged.

Methods of determining and adjusting claims for loss and damage are not standardized nor scientific. While the claim agents of the various lines hold meetings annually or oftener, there are still marked differences in the reputations of different roads in the matter of claim settlement. In fact, there is some reason to suspect that liberal and prompt claim allowances have been made by some roads for advertising purposes. In other words, business has been secured by some roads because they have given the impression that

they were more liberal in the payment of claims than their competitors.

There seems no sufficient reason why two shippers whose goods moving between the same points have been subjected to like treatment or delay should have unequal difficulty in securing justice because their goods moved over different rails. Accurate determination of the condition of goods on delivery and of the probable causes and extent of losses or damage sustained, costs more money than the carriers have yet been willing to pay. Their efforts to secure this information have thus far been entrusted to their own employees or to hired inspection forces which, in the nature of the case, could not be wholly disinterested. The employee naturally seeks to save money for the company. The hired inspection agency naturally strives to make the road feel that it "pays" to employ its services. The net result is an absence of any coherent, defensible, or uniform policy and practice in claim adjustment.

The carriers suffer to some extent from this situation, for the traffic men of some shipping organizations become so expert in claim formulation and prosecution that their collections seem to the outsider to be excessive. It is said of one large shipping firm that if they can "break even" on the face of their books for a season's business and have their railroad claims left for a profit, they are well satisfied.

The number of claim adjustment agencies in some markets is so great that the conclusion seems obvious that they are predatory rather than legitimate in their operations. They make voluntary examinations of cars and contents for receivers and upon discovery of the slightest pretext solicit the job of prosecuting a claim for a percentage or a fee.

Certainly some coordinated and intelligible method of handling the whole question of claims for loss and damage to fruits and vegetables is needed. Universal inspection of all cars on arrival at destination by a governmental agency has been seriously considered by the carriers. Probably this

would be done if any one group of inspectors could pass technically and accurately on all products or all classes of freight. The Government could easily render the service on fruits and vegetables and its inspectors are in fact called upon by the railroads to inspect and certify to the condition of hundreds of cars each year, but these are usually cars in some special trouble or over which suits are likely to be brought.

In June, 1926, a railroad which is one of the largest deliverers of fruits and vegetables in a city of over 500,000 inhabitants signed a contract with the Government for the inspection of every car of these perishables received for unloading on its tracks. This experiment is still in progress and may point the way to an improvement and unification of the methods of claim settlement.

XVII

EVOLUTION OF THE NATIONAL DISTRIBUTOR

The distributor defined. Cooperative distributors. Origin. From commission merchant to distributor. Factors of success. Examples; cantaloupes, lettuce. From wholesale dealer to distributor. Through financing. Through purchase rarely. Examples. Specializers. From local operator to distributor. Examples; Florida, Colorado and others. Apple distributors. The cooperative as a distributor. Character and location. Examples; California, New England and others. Service rendered. Professional distributors. Services offered. Ten points of strength. Service in preparing goods. How permanent is the professional distributor? Conditions essential to success. Dependence of vegetable growers. Of new districts. Legal difficulties. Lack of standardized procedure. The distributor speaks for himself.

THERE is no clear-cut and authentic definition of a national distributor. There is a tendency among dealers whose business is no longer confined to a single market to call themselves distributors. The country shipper likewise, when the volume of his business has grown to considerable proportions, and when he has sales connections in several markets, is inclined to advertise himself as a general distributor of certain products. Agencies which undertake the marketing of the entire output of a group or association, involving shipments to many markets, are generally known as distributors. Here there seems to be no question as to the propriety of the designation. There are also cooperative associations which ship their own products the width of the nation, and even to foreign countries, which appear to be as clearly entitled to be called distributors as are any other fruit or produce handlers. A study of the credit rating books of the fruit and produce industry fails to give us any definite limitations to the use of the term in the trade.

We find, however, one pervading idea. The distributor is a person or organization whose operations are not confined to a single market nor to his own branch houses. Broadly

speaking, he fills orders by moving the goods from point of origin to the place of use, rather than by selling out of his own stores or storage stocks. This distinguishes the distributor from the speculator, from the ordinary dealer, and from the broker.

There are now a number of distributors who operate on such a scale that they may fairly be called national in their scope and influence. In the aggregate they handle an immense tonnage. They contribute much to the degree of market stability already attained. They render a service to many producing groups without which these groups could function with difficulty if at all. Those national distributors which are controlled by organized growers are the largest domestic patrons of the organized auctions in the large terminal markets. Without them the auction method of selling could not have reached its present importance.

Within this national distributor group we find the greatest diversity of organization and of interest. The sales policies of some are diametrically opposed to the policies pursued by others. Some are private commercial agencies operating for profit, buying and selling or financing production under marketing contracts. Others operate for a selling charge, a brokerage or commission. Some are organized as the selling agencies for single groups of cooperatives. Still others are themselves non-stock, non-profit, grower-controlled, cooperative organizations, national distribution of the product being but one of the many services performed.

All of these agencies use the same physical means for crop storage and movement. A stranger to the industry would see no outstanding differences in methods of preparation and handling. The nation-wide shipment of perishables gives to each the opportunity for existence. The various types of national distributors have, however, developed from widely different origins and in response to widely differing needs or opportunities. A study of their evolution may lead to some opinions as to their probable permanence or the extent of their future usefulness.

FROM COMMISSION MERCHANT TO DISTRIBUTOR

In another chapter we have traced the activities of the commission man as he extended his operations to steadily widening horizons seeking to prolong the season for the perishables which he sold. We have seen him as the promoter of new enterprises, financing production where local capital dared not to take the risk.

We have not considered in equal detail the factors which have forced most commission houses to become purchasers of much of the produce which they handle. The "straight consignment house" is now relatively rare. Many houses operate in some products as dealers exclusively while handling other products on grower's account only. Probably few of the older houses were able to foresee 20 years ago the type of business which is most important in their activities today. Much has depended upon whether they were early or late comers in certain districts which have become important sources of supply for certain products.

Whenever the product of a new region has won a favorable reputation, there has usually come a time when the demand exceeded the supply. If production was largely controlled by relatively few commission houses, the situation tended to force them into a general distributing business. At the same time other commission men must become buyers if they were to offer these goods to their customers.

The house which originally had sought chiefly a supply for its own store or stores naturally grasped the opportunity to add to its profits by extending its control to the largest possible part of the tonnage of the district, now in active demand in carload quantities in many cities where the house had no branches. This situation leads naturally to the organization of a field sales department or to departmentalizing the business of the firm, so that certain members and employees are engaged wholly in sales work in the cities in which stores are maintained, while others sell to the trade in other cities, operating in goods which have

never reached the distributor's stores. There may also be a production department or a brokerage department.

Whether the commission merchant who thus becomes a distributor of a product from a given region continues to develop into a national distributor may depend upon several contingencies. Fairly uniform business success will have the greatest influence, for without it nation-wide operations cannot be financed. The position with regard to the total national supply which the territory in which the distributor is entrenched continues to hold year after year is an important factor. The success of the firm in handling new or related lines on an equally large scale may be essential.

Probably a majority of the firms now recognized as national distributors owe their development to the fact that they were early on the ground in some new district the products of which came into general demand. Specific typical cases may be cited without impropriety. These include nearly all of the commission firms which participated in the early exploitation of the Imperial Valley of California as a source of early cantaloupes. The number of well-financed concerns which took a permanent part in this enterprise was small. The tremendous outlet which has developed for the product and the enormous production of which the Valley proved capable have made most of these firms national distributors of Imperial Valley cantaloupes. What more natural than that these firms, with contacts for the sale of cantaloupes all over the country, should do their utmost to hold this trade by controlling as large a part as possible of the cantaloupes in each succeeding district as the season progressed? What distributor, coming first into the market with the cantaloupes from a later district, could hope successfully to compete with these firms which were supplying the trade regularly with fruits of the highest quality under brands already well known? A few dealers, especially well established in other districts, might hope to survive the competition, but they had little chance to rise

to the position of national distributors, much less to wrest preeminence from those who operated largely in the earliest district, which is also the district of largest production.

The development which actually took place was natural, perhaps inevitable. The distributors of Imperial Valley cantaloupes became also distributors of cantaloupes from the later irrigated districts, Phoenix, Arizona; Turlock, California; Rocky Ford, Colorado. Efforts to develop the industry around El Paso, Texas, and in the Pecos Valley of New Mexico proved only sporadically successful and on a relatively small scale. Even here the bulk of the crop was always handled by one or more of the Imperial Valley distributors, who became and are still, the recognized national distributors of western cantaloupes.

The tradition of the commission house remains stamped upon this industry. The volume of f.o.b. trading has always been relatively small in all of the western cantaloupe regions. The distributors have made every effort to sell delivered, through their own houses where possible, or through other commission houses on a split commission in cities where they were not otherwise represented.

Some of these firms are known as national distributors of cantaloupes only. Aside from these operations they are essentially commission merchants or wholesale dealers in their respective home cities in the Middle West or East.

FROM CANTALOUPES TO LETTUCE

After the fame of the Imperial Valley had gone abroad, resting largely on its cantaloupe crop, lettuce culture developed on an even greater scale. The marketing seasons of these crops did not conflict. Local representatives which several firms found it advisable to maintain permanently in the Valley could attend to a lettuce business with added profit to their firms. Inevitably many of the cantaloupe distributors became lettuce distributors, also on a national scale. The Imperial Valley is now the most concentrated

and voluminous lettuce-shipping district in the world. It has made national lettuce distributors of firms which even 10 years ago had not dreamed of themselves in that role.

We have, therefore, one or two firms well known as national distributors of both cantaloupes and lettuce but figuring chiefly as local commission houses in single eastern markets for the sale of other products.

Without illustrating further the rise of the commission man to the status of a national distributor, let us note that he has usually reached this status through the handling of vegetables, or annually planted crops, rather than through handling fruits. The basic reasons may be deduced from the discussion of the differences between the fruit and vegetable industries in Chapter VI.

FROM WHOLESALE DEALER TO DISTRIBUTOR

Some localities with relatively limited production have been able to establish their marketing largely on an f.o.b. basis. Other producing areas naturally tributary to certain markets have been invaded by buyers from more distant cities to which growers were not inclined to consign.

When field men sent out to solicit consignments have been able to show the firm better profits on purchases than on consignments, there has naturally been little difficulty in persuading the management to become buyers on their own account instead of commission merchants only.

The transmutation from commission business to straight wholesale merchandising and subsequent expansion into the field of nation-wide operations is easy and natural for the man with unerring commercial instinct.

Complete success can now be expected only by men who can secure the growers' confidence, for few men can conduct a nation-wide business in highly perishable goods on a strictly cash basis. Usually partial payments or advances with full settlements later must be the rule.

Distributors who buy perishables for truly widespread distribution are relatively few. An occasional example only can be found. The largest distributor of watermelons in the world is a firm, originally commission merchants in a single city, which now buys and sells most of the products handled.

The same firm operates very extensively in both onions and potatoes, maintaining buying branches in producing areas and selling carloads throughout all the central and eastern states.

The field office of this firm opens first in the watermelon district of Florida. Buyers cover the territory and purchase loaded cars on the sidings ready for shipment. A little later the office is moved to south Georgia, then to central Georgia, then to southeastern Missouri, and finally the field work centers in southern Indiana. From each of these districts this firm ships its goods to the farthest markets which can be reached. Occasionally cars may be marketed for the grower for a brokerage or selling charge, but as a rule the melons are bought outright and are given the widest possible carload distribution. The business runs into thousands of cars of melons annually.

The onion and potato branches of the business are operated from permanent field agencies or headquarters in Ohio, Michigan, and Minnesota clearing their operations through the home office, but shipping as far east, south, and west as the market for potatoes from the Lake states extends.

Another buying distributor of onions operates in the Connecticut River Valley of Massachusetts and in the Bermuda onion district of Texas, with offices in each during the marketing season. The business is chiefly buying at point of origin for general distribution over a large part of the country. In this case the evolution has been from a local buying business to that of general distribution. This firm has never figured as a city commission house. The contacts with the wholesale trade in many cities, established through

the sale of Massachusetts onions, have been cultivated and widened by pushing the buying operations into other producing regions having a different type of product or a different shipping season and within reach of additional markets.

The dealer who thus specializes in a single product, or in a very few, may win an enviable reputation in the trade for his exceptional knowledge of qualities and values. The city dealer handles perhaps 30 to 50 fruits and vegetables at wholesale. He cannot hope to know concerning each product as much about sources of supply, quality in different districts as affected by the weather of the current season, earliness and lateness of crops, unusual overlapping or gaps between usually consecutive territories, as does the dealer who specializes in one or two products and operates personally in every important district in turn. Such a distributing buyer must canvass every source of supply in advance and must be able to advise his customers whether to buy for current needs only, or to anticipate their wants.

The city operator may profit by securing many of his supplies from a few such general distributors who are commodity experts. They can render him a service which he can hardly find elsewhere. Their existence depends upon his continuous patronage. Their profits depend upon quick sales of many cars. While they may buy and store some commodities, sometimes making or losing heavily on the venture, their major activity is in making current purchases and sales. Hardly any two firms in this field operate exactly alike. As stated, there are relatively few such buyers whose distribution affects seriously the national movement of any product, but these men can and do render the industry a unique service.

FROM LOCAL OPERATOR TO DISTRIBUTOR

There are several national distributors now operating who have simply grown with their territories. They are

men or firms that were early on the ground in some region whose products now reach most of the markets of the country. Shipping these products to greater and greater distances and in larger and larger volume as supply and demand increased, their names and brands are now known wherever the products of their region are on sale.

In some cases they are still chiefly buyers for resale. In others they operate as growers' agents under all sorts of agreements. They may finance much production under marketing contracts and may themselves be producers on a large scale. They may also be marketing agents for cooperative groups which have organized around them, but there is an unfortunate tendency among cooperatives to consider such established local dealers as their natural enemies. Not infrequently the cooperative has regarded them as obstacles in the path to its success and as competitors who must be eliminated.

One of the oldest shipping firms in Florida is known wherever Florida oranges are sold. Its business has been confined to Florida products for some 30 years. It has operated in all the ways just enumerated. It has supplied growers with most of the essentials for fruit and vegetable production and packing. It owns and operates packing houses for oranges and grapefruit. Its ramifications have extended throughout the state as new areas of production have been opened. Keeping pace with local development this firm has become a national institution as Florida products have gained a larger place in middle-western and northwestern cities.

There are shippers in Colorado who have been brought into national prominence by the growth of the mountain lettuce districts which now dominate most of the markets during midsummer. Handling some of the first shipments, they have expanded their operations with the demand, usually by financing further production, providing packages and packing facilities, with minimum price guaranties or other marketing arrangements.

The tomato districts of Mississippi and Texas have each developed one shipping firm with trade contacts as wide as the territory reached by these tremendously concentrated producing areas.

The Pacific Coast, particularly the apple regions in the Pacific Northwest, furnish some of the best examples of such development. Here are firms which have grown with the industry until their brands are found almost everywhere in the United States, the British Isles, and in many markets of continental Europe. Their functions are almost as varied as those of the Florida firm just described, but the number of products handled on a large scale is usually much smaller. The apple predominates here as does the orange in Florida. By building and operating packing houses and sometimes cold storages, by financing production, by cash purchase at the time of picking, by operating as growers' agents in every sort of shipment and sale, they are identified with the apple industry of the country and participate in its well-nigh world-wide marketing.

There are perhaps 20 firms in the country which have thus grown to national importance because of the growth of production in their home areas. Meantime thousands have been overshadowed or displaced by the organization of cooperatives or the operations of general distributors, or by the competition of agencies more adequately financed which have invaded the district as its products grew in popularity or volume.

The evolution from local operator to national distributor is a striking example of the survival of the fittest. It is, however, much more than this, for thousands of local operators still survive in competition with all other classes of dealers, distributors, and cooperatives. Most of them remain almost as they began, their business confined to a few markets, often limited to transactions with only a few distant firms. The local operator who has been able to extend his operations over a continent has been an economic engineer. He has planned and executed advance movements

with successful strategy and generalship and has redesigned and modernized his business organization to carry enormously increased volume, to cover an ever-widening territory, and to meet and master ever-multiplying complexities.

THE COOPERATIVE AS A DISTRIBUTOR

Cooperative organizations of fruit and vegetable growers have come into being with many different plans of action. Some have had marketing as their major object. Others have planned united action to prepare their products for sale and distribution by other agencies. Their significance in the general field of marketing has been discussed in a preceding chapter. We come now to consider a few of the larger and best-known members of the cooperative group in their capacity and significance as national distributors.

CHARACTER AND LOCATION

Many people think of the effective cooperative marketing of fruits and vegetables as being a western development and still largely confined to the Pacific Coast. The well-nigh universal citation of the California Fruit Growers' Exchange as the outstanding example of successful, large-scale cooperative marketing has given this impression. As an appointing officer in the United States Department of Agriculture this writer has seen hundreds of examination papers and theses submitted by applicants for positions in the service. It is notable that nearly every competitor who has studied marketing as a part of his college course knows, or thinks he knows, all about the organization and operation of this exchange. It seems to have found a place in most works on farm marketing as an outstanding or typical illustration and demonstration of what has been and can be done through cooperation.

Priority in national prominence may properly be granted to this exchange, but today the American Cranberry Ex-

change, distributing largely the products of Cape Cod and New Jersey, is equally well known to the trade wherever cranberries are sold. The Florida Citrus Exchange, handling perhaps one-third of the citrus fruit of that state, is known wherever Florida fruit is sold.

The Michigan and Colorado Potato Growers' Exchanges, the Eastern Shore of Virginia Produce Exchange, and the Hastings, Florida, Potato Growers' Exchange each operates throughout the entire area reached by its product, and potatoes seem to be shipped over longer and longer distances.

The cooperatives of the Hood River Valley in Oregon and of the Yakima and Wenatchee Valleys of Washington are important factors in the sale of the fruits of these regions throughout the United States and in Europe. California has other outstanding examples of large-scale organization. The California Fruit Exchange figures largely in the distribution of all the deciduous fruits of the state. The California Walnut Growers' Association is even more dominant in its field, but large-scale cooperative marketing can no longer be called local or regional.

SERVICE RENDERED

The larger cooperatives do not render identical services nor do they all favor or use the same methods and means of distribution. Some are among the largest users of the organized auctions in the larger cities. Some sell almost exclusively on an f.o.b. shipping-point basis. Some have salaried representatives in the larger cities and have exclusive contracts with brokers in other markets. Broadly speaking these cooperatives undertake to place the products of their members wherever the best outlets can be found for them. The cooperative is often an extensive advertiser. It handles products of similar kinds and from the same district year after year and thus establishes a reputation for its brands. If the organized group has a sufficiently large tonnage to

be nationally important, it enjoys some advantages over other kinds of distributors.

Whether or not a cooperative marketing association becomes a national distributor depends largely upon its actual and potential tonnage and upon the strength and vision of its leadership. Theoretically at least, the cooperative is interested first in memberships and second in service to the members. Tonnage, in and of itself, should not be the main object. It is incidental to membership. If the association undertakes wider and wider distribution it is in the effort to improve its service to members and to meet the competition of other selling agencies.

PROFESSIONAL DISTRIBUTORS

This is an arbitrary designation to distinguish a group of distributors that differ from any thus far discussed and which are, in the main, of relatively recent origin. These are corporate bodies, with or without certain stores or commission houses of their own, whose services as general distributors are offered to growers or groups of growers and even to well-organized associations, scattered over wide areas.

These distributors, with central offices in New York, Pittsburgh, Cincinnati, Chicago, San Francisco, Los Angeles, will undertake to distribute an orange crop from Florida, a peach crop from Georgia, an apple crop from Wenatchee, Washington, an onion crop from Texas, a potato crop from Minnesota, and so on. Their contacts are almost everywhere. Some of them promote cooperative organization simply to concentrate enough tonnage under one control to make it profitable for the distributor to handle the business. They handle immense sums of money in aiding to finance those who market through them.

Some have their own brands under which they sell the products of their clients. Theoretically at least, they insist on a certain degree of standardization of the goods on which

these brands are to be used, but in the very nature of the case it is impossible that a brand used, for example, on apples from practically every state east of the Rocky Mountains can indicate as uniform and dependable quality as can a brand used by an association located in a single district and handling the same varieties from the same localities year after year.

The itinerant general distributing corporation can, however, bring about an approach to uniformity of grading practice in the successive districts where it operates which would not be attained without its influence. It may be either adviser or dictator in the matter of packages, methods of grading and inspection, and in the general questions of sales policy, dependent upon whether it secures the business of its client by solicitation and in open competition with other distributors on a showing of service to be rendered, or whether it has a mortgage on the business by prior advances of substantial loans.

If the distributing corporation has advanced no money on the growing crop and bids for the business of marketing purely as a service agency, it may render either a wide or narrow service. It may undertake nothing more than the sale of the goods of its clients, packed, branded, loaded on cars and ready for sale. It may then sell f.o.b. or rolling and may have separate rates of compensation for cars thus sold and for cars which it finds it necessary to consign for sale through commission houses in the markets. The distributing corporation may also have a specific commission or brokerage for cars sold through the terminal auction companies. In short, if the corporation is strictly an *employee* and not a *creditor* it will take just as much or little responsibility as the producers or association may desire.

The prosecution of railway claims is frequently left to the distributor. When this is done, the final financial settlement may not occur until long after the crop is marketed and all other business of the distributor in that region has been closed up for the season. The difficulty of keeping

track of just what has transpired between the distributor and the carrier sometimes results in much suspicion and criticism.

The distributing corporation, at its best, offers a general marketing service based upon (1) widespread acquaintance with brokers, buyers, commission merchants, auctions or other outlets; (2) special connections or permanent branches of its own in a number of important markets; (3) wide acquaintance with the condition and current movement of competitive products; (4) extensive experience in handling the same or similar crops; (5) the employment of good salesmen as its local managers of its clients' business; (6) a knowledge of routes, rates, diversion privileges, and other traffic matters; (7) a knowledge of the preferences and consuming capacities of markets; (8) discretion and ability in handling claims; (9) energy and tact in forcing acceptance of goods sold f.o.b.; (10) unquestionable financial responsibility.

If the service begins with the preparation of the goods, the best of distributing corporations may furnish (1) expert advice on time and methods of harvesting; (2) actual supervision and control of grading and packing operations; (3) supervision of car loadings from central packing houses; (4) uniform brands and labels for all the products of its clients; (5) possibly the packages themselves and on better terms than its clients could obtain.

It is obvious that a producer's organization must do a large business and acquire many years' experience before it can develop and maintain a force of officers or employees as competent to render all these services as are those of the best general distributors. On the other hand, the organization which employs first one distributor and then another to market its crop cannot hope to develop so consistent a policy nor ever build up such a volume of goodwill in the markets as it could if it developed its own sales force and held the same men through a term of years. This, many of the fruit growers' associations have done, while the vege-

table producing groups are still selling largely through distributors.

HOW PERMANENT IS THE PROFESSIONAL DISTRIBUTOR?

Since this type of service is of such recent origin, it is natural to ask whether the conditions which have called it into being are likely to be permanent or whether they are transient. Just what are the facts and forces which have led to this development? What conditions are essential to the maintenance of such service? Have the general distributors been so generally successful in giving better service than the producers could have secured otherwise that we are justified in assuming that the growers will continue indefinitely to employ them?

Here we are confessedly in the field of speculation. The foregoing discussion has foreshadowed some of our answers, but we venture a more specific analysis.

First, the professional distributing corporation must have a large and sustained volume of business to maintain its organization. It cannot hope to live by distributing the crops of individual growers each under a separate contract. The expense of soliciting and "signing up" such growers, of keeping so many separate accounts, of handling such voluminous correspondence and of handling so many miscellaneous small lots would necessitate a charge which most growers would not pay. The distributing corporation must then deal with organized groups or with the larger producing units which can standardize their products and load full cars.

Second, will such organized groups and large individual growers continue to use distributors or will they tend more and more to do their own selling?

If the organization of the groups is permanent and their business is fairly well stabilized, they will tend more and more to develop their own sales forces. This is likely to be especially true in all tree-fruit districts, but far less likely

to be true in vegetable-growing areas, for reasons discussed in Chapter VI. The inherent weaknesses of vegetable growers' organizations seem almost sure to prevent the formation of strong, independent marketing units. Potato growers may accomplish this because of the large volume and constancy of production in some districts, the relatively long selling season, and the fact that consumption is general and constant, responding little to the arts of salesmanship. Organizations in other vegetable-growing groups seem likely to continue relatively weak and dependent upon outside financial aid which must come from the trade rather than from the banks direct.

It seems, then, that for a long time to come, the distributor, or a similar marketing agent, is likely to play an important role in vegetable distribution. If these distributors are to remain comparably important in the marketing of fruits it seems likely that they must become orchard owners, as in fact some of them are doing. Certainly they must identify themselves permanently with the fruit growers whom they seek to serve and must not serve competitive districts simultaneously.

Third, the distributor will thrive as long as new centers of carload production are developing. It is hardly too much to say that, as matters stand at this writing, a new district cannot rise to national importance as a source of supply without the aid of the distributor. He brings to its service an equipment of personnel and experience which cannot be indigenous to a new commercial area. No matter how general the diffusion of market and shipment reports, no matter how widespread our statistical knowledge of our fruit and vegetable crops may become, the actual marketing of these perishables cannot be entrusted to those who have not felt the pulse of the market by actual personal contact. All this is true in the early days of a new tree fruit district, but as the experience of years is accumulated, large groups of growers will decide to handle every phase of their business cooperatively and there will be left as clients for the dis-

tributor chiefly those who need his financial aid to grow and harvest the crop.

Fourth, the future of the professional distributor may depend largely upon the attitude of the courts. Few of these agencies escape the necessity of acquiring a financial interest in the goods they sell. The moment they become dealers it is difficult for them to cooperate effectively without violation of the antitrust laws. Yet the distribution of the Georgia peach crop by some half-dozen competitive general distributors, with little coordination of effort, has resulted in unmitigated disaster. The producing district thus served becomes a house divided against itself.

The effort of each distributor to sell or place as many cars as possible in those markets which are considered desirable, results too often in unduly depressing prices in the largest cities, with the inevitable result of lowered prices in all the smaller markets. The dealer in Binghamton, New York, or in Altoona, Pennsylvania, must *buy* a car of peaches if he wants one, for these cities are too small to receive carloads on consignment to be sold on commission. Five or six distributors in Georgia may wire the dealers in these cities daily soliciting orders, but will not be able to make sales above the prices at which Georgia peaches are selling in New York City and Philadelphia. Thus the competitive scramble of rival distributors for the big markets results in the general depression of all markets.

Distributors, realizing this situation, have made some effort to relieve it by conference and informal agreement. Into every such conference, however, there stalks the specter of possible prosecution for conspiracy in restraint of trade. Usually each distributor is further hampered by inability to pool the goods he is selling and hesitates to take the responsibility of making a sacrifice sale in a small market to relieve the pressure in a larger center. Intense rivalry for the grower's patronage, as in Georgia, compels each distributor to serve the exigencies of the moment. He must make today's sales compare favorably with those

made today by his competitors. He cannot take the long-time view of the situation, for he may never figure in it again if he allows his rivals to gain a present advantage.

Here then is a basic limitation in the usefulness of the professional distributor. If several of these agencies find themselves sharing in the marketing of the crop of a single area they can be most efficient if they operate almost as one concern. They should pool all their information on market supplies, trends, and prospects and should agree upon a plan of distribution which will prevent accumulation of supplies in the governing markets. Legally this is likely to be considered in restraint of trade or a division of territory and therefore in violation of law.

As long as this legal situation continues, distributors can do their best work only when one such agency operates in any one crop at any given place. In tacit recognition of this fact many cooperating groups of producers invite competitive bids from various distributors for marketing service, but award the job to one, almost never inviting two to share or divide it.

We conclude on this point that if there is a modification of law or a judicial approval of some form of supervision under which distributors may safely cooperate in scientific distribution of similar products, the distributor may play a more important role in the future than he can play at present. If present laws remain long unmodified, they will be found to militate silently, but inevitably, against the general distributor whose services are for hire and in favor of the permanently organized and localized cooperative. The latter may legally do what the former may not, and there are sound reasons for the apparent discrimination.

Fifth, the future of the distributor may be profoundly affected by a changed attitude of the grower toward delivered sales or toward straight consignment to commission merchants. The distributor is usually employed on the assumption that he will sell all or most of the crop f.o.b. shipping point. The growers are dissatisfied if the distributor

finds himself compelled to consign. The growers feel that rolling cars to commission men is not an intricate business for which they should pay a third party. If a commission is to be paid in New York, why pay a distributor a fee or brokerage in Georgia? "Anybody can consign. We do not need to pay for that." Thus reasons the grower.

If anything happens in the future to reconcile the grower to consignment selling, is he not very likely to decide to do the consigning himself or through his own organization? He certainly will. He will reason that the only guidance he needs is in the selection of his commission man and in the apportionment of the goods from his section to the various markets. He will expect the management of his association to arrive at this apportionment by experience and with the help of the United States Department of Agriculture.

The grower will overcome his prejudice against shipping for sale on commission whenever he can be shown that he can depend upon honest and efficient salesmanship and the general protection of his interests by his agent in the market. It is not too much to hope that the day is close at hand when such assurances can be given. If this hope is realized, we may expect a general declaration of independence on the part of every producing district which can finance its own operations. The outside marketing agency will be given the cold shoulder. Any money paid it for aid in distribution will be regarded as money wasted.

Sixth, through no fault of his own the distributor thrives upon the grower's perplexity and misfortune. If buyers generally were seeking fruits and vegetables, all would be well. With producers seeking outlets for more than the markets will absorb readily, the grower finds himself perplexed. Neither he nor his small local association has any satisfactory contact with, nor intimate knowledge of, any considerable number of markets. When the average grower of today was a schoolboy there were no statistics of production, movement, market receipts and prices of perishable

products. These guides to good marketing are of such recent origin that he has been too busy to master them. He feels that he knows a little about them, but knows that "a little knowledge is a dangerous thing." The professional distributor claims to know, so the prudent grower wants his small association to employ the distributor.

The growth of the industry has been so rapid, and just now the pressure to find markets is so great, that few growers have been able to keep abreast with the changes in methods and relationships which have been going on. The grower hires the distributor because he does not know what else to do.

Seventh, there is as yet but little genuine standardization of business procedure in marketing fruits and vegetables. It is true that certain trading rules have been approved by various organizations and trade associations in this industry, but it is notorious that there are but partially observed. At best they do little more than furnish standard definitions for terms frequently used in telegrams and indicate an approved or recommended procedure in certain specific contingencies.

As the industry settles down to a condition of comparative stability, the usual methods of doing the necessary things must be more definitely standardized. As procedure is standardized, it will become progressively less necessary for any organized community with a constant supply of desirable product to employ the transient services of a professional distributor simply because he knows the rules of the game or the tricks of the trade. The tricks of the trade are bound to become matters of common knowledge, and forces for their correction are already at work.

THE DISTRIBUTOR SPEAKS FOR HIMSELF

The case of the distributor has been stated by an outstanding member of the group in a dispassionate and forceful paper which is not likely to be found by the student of

marketing. It was presented at a meeting at which the representatives of cooperative marketing had prominent places. This accounts for the method of approach but does not not detract from the force or logic of the argument.

This appears in the following quotation from the *Report of the National Agricultural Conference* of January, 1922.[1]

The Place of the Independent Distributors

By William L. Wagner, of Illinois

The use of the term "independent" would indicate an individual or phase of industry not fitting into the general scheme of things, or at least a system antagonistic to cooperative endeavor as applied to marketing. The general understanding is that by "cooperative marketing" is meant a union of producers who not only produce but assemble their product and market it themselves without at any time losing control of their product, while as against this stands the "independent," who in some manner or other seeks and obtains advantages to the detriment of the producer. Nothing could be further from the truth as applied to the latter. To succeed he must work along lines of highly concentrated cooperation and his every endeavor must be governed by that need of cooperation as between himself and the producer.

That there is a so-called "independent" distributor is not a matter of chance. It is but the outcome of the natural order of things. He is the pioneer who, through his vision and knowledge, develops and stimulates production and brings it to the point where cooperative marketing may be discussed.

The independent distributor has no quarrel with cooperative or any other form of marketing, but, on the contrary, is entirely sympathetic with any method that has for its purpose better conditions, greater production, and improved service and value to producer and consumer. On the other hand, I think I can state just as emphatically that with him who understands there can be no quarrel with the independent distributor.

The production of perishable food products is a business or profession purely agricultural. And upon the other hand distribution is a business or profession distinctly commercial, and no matter how closely the two may be interwoven or allied they are fundamentally separate and specialized industries, each requir-

[1] Public Document 195, 67th Congress, 2nd Session, pp. 84 ff.

ing a special knowledge acquired by study and experience in connection with the particular items produced and marketed.

In the early days production of perishable food products was more or less haphazard. In those days the commission merchant who maintained at the larger points of commerce a store and a corps of salesmen was the only outlet through which these perishables could be marketed.

With the coming of refrigerated transportation and the constant developing of urban centers, increased production became not only possible but a necessity. With the increased production developed two additional classes of merchants—the wholesaler and the jobber.

The wholesale merchant, commission merchant, and jobber derive their supplies from world markets and make available to the consumer fruits and even vegetables from many parts of the world. They do a year-round business in many commodities, following the seasonal production in the various sections and keeping constantly on sale such products as are available. In this way the overhead or cost of doing business is kept at a relatively low figure, whereas if one or two seasonal commodities only were handled the overhead would be prohibitive.

Between all of them they are constantly seeking new markets and pushing fruits and vegetables even to the hamlets and crossroads. As a further process of evolution has come what is now technically known as the distributor, and it is he who while performing a strictly commercial service performs one so thoroughly trained and so highly specialized as to be professional in its character. He offers to the producer, whether as an organization or an individual, all of the advantages of cooperation, but without loss of individuality; the privilege of personal selection of a marketing agency; not only the right, but the opportunity to develop a personal pack and brand or the advantage of marketing under a brand already established and a marketing and distributing service with an already developed and proven value.

Many of our large producing centers of fruits and vegetables owe not only their present importance but their very existence to the services rendered by the so-called "independent" distributors. It is not my thought to develop a parallel as between the functions performed by the so-called "cooperative" marketing agencies and the "independent" distributor. A checking and analysis of these functions will develop the fact that there is no cooperative system that cooperates to a greater extent or more effectually than that employed by the independent distributor.

Even a superficial knowledge of the marketing of perishable products will demonstrate that a certain amount of machinery is an absolute necessity from the time that the product leaves the producer until the time it reaches the ultimate consumer. Just as surely as the law of supply and demand governs the prices obtained, so does it control the character of the machinery or distributing agency used, and it is an inevitable conclusion that a system of distribution must demonstrate its efficiency and economy to endure. That different methods are employed or that competition exists among distributing agencies is not an unhealthy sign, but on the contrary, it is most certainly to the advantage of the producer.

Another class of buyers, peculiar to certain sections, are those who buy crops in their entirety, having these crops packed under their own direction and distributed through their own established organizations. While these systems vary, they may all be termed independent distributors as distinguished from the cooperative marketing system. Each or any of these offer to the producer the free use of his own intelligence in the making of a selection as to the agency to be employed and to exercise his own judgment as to that method of distribution which shall produce for him the utmost limit of net compensation and the very competition of methods employed. The necessity for demonstrating efficiency and economy to maintain one's clientele means that a maximum volume of service is rendered the producer and that, under conditions existing, a maximum result is obtained.

A careful search of the history of the cooperative organizations in connection with the production and marketing of perishable food products, finds two classes or forms of organizations and with widely different results as applied to classes. Those which have been organized for the purpose of manufacturing the product, doing the necessary grading, packing, and assembling in quantities and then employing an independent distributing service, have in a large measure been successful. On the other hand, those that have been organized to carry on beyond the manufacture and actually do their own marketing and distributing have not been so successful, and it is found that few if any of such organizations now exist that were organized 10 years ago except in those instances where the commodity produced and marketed constitutes practically a monopoly. By monopoly is meant that no competing production is found in other sections of the country at the time that their commodity is produced. Even by the successful ones, some marketing agency must be either employed or created, and the choice is presented of em-

ploying, at a fixed cost with a predetermined overhead, the already organized and highly efficient and specialized sales service of the so-called "independent" distributor, or of employing, organizing, and training a force of salaried employees, with an undetermined and most uncertain overhead.

The place of the independent distributor is not a self-created one, but one developed by natural conditions, and in the general process of evolution he has kept pace with the changes; his vision is broad and not confined to his immediate commodity or environment. Through competitive service he maintains a place as between the producer and the consumer. He is forced to realize values that will stimulate production and yet such values as will not develop monopoly of extortion—such values as will induce consumption and through such consumption justify production. No demand or suggestion for his elimination has ever been made by those engaged in the production, and any thought that such a demand does exist is founded only upon imagination.

XVIII

SPECIALIZED MARKETING FUNCTIONS

Division of labor. Diversity of problems. Special processing. Fruit messengers. Ripening tomatoes. Celery washers. Field handling. City finishing. Salvaging. Special business services. Private inspection agencies. Their advantages. Railroad patronage. Claim agencies. Predatory types. Auction representatives. Buying brokers. How they operate. Value and limitations of service. Country services. Potato loaders Lettuce packers. Asparagus packers. Independent packing houses. Sweet potato houses. Exploitation. Permanence. Special labor groups. Pier truckers. Recoopering gangs. Related services. Package industries. The trade press. Credit ratings.

THE division of labor in marketing perishables is as marked as in other kinds of commerce and industry. As the industry is only a generation old and now involves hundreds of millions of dollars annually, it is but reasonable to assume that some of this specialization results from temporary conditions. Many of these highly specialized functions may cease to be useful under the changed conditions of the near future. Nothing seems more evident than that far-reaching changes are still to come. A complete listing and description of the numerous special services, enterprises, occupations, and functions which now furnish a living to large or small groups of men in the produce industry would be in itself no small undertaking. When complete it probably would surprise even its compiler. Then within a few years much of it might sound like ancient history. We venture to discuss a few without attempting to exhaust the list.

DIVERSITY OF PROBLEMS

The public seems to think of fruits and vegetables as a group to be discussed as though they were largely alike.

We find them grouped for statistical study whether in imports and exports or as a part of the family budget. We speak of the dealers in these products as though they had common problems and interests. They have, but in many cases the community of interest is far less important than is generally assumed.

There are many large dealers who specialize in one or a few products and never handle any others. These dealers have special facilities for handling their specialties. Usually they have fairly well defined sources of supply and wide outlets. In most large markets there are a few firms recognized as headquarters for certain products. From them these particular products can be had if they can be had at all.

Some specialize in goods which require special temperatures. Some in those which require special rehandling. Some in imported products. Some in the cheaper, bulky vegetables like potatoes, cabbage, or onions.

The handling of some of these goods has but little in common with the handling of others.

SPECIAL PROCESSING

Among the most extensive of the special handling processes is the ripening of bananas. The fruit as it comes off the vessel is usually solid green in color and wholly unfit to eat. Its first sale is in this green state. The buyers ripen the fruit in large quantities and resell to the wholesale and jobbing trade. Controlled conditions of heat, light, and humidity are essential to successful handling. Banana ripening is an industry by itself.

FRUIT MESSENGERS

Bananas bear transportation better while green than after ripening. It is therefore advantageous to do the ripening as near to the points of final distribution as may be prac-

ticable. So we find trainloads of bananas moving from the ports to inland cities for ripening and resale or reshipment. This business goes on throughout the year, and during the winter months special precautions must be taken to maintain uniform and fairly high temperatures in the banana cars. The ripening process must not be too much retarded, and chilling must be prevented.

Since no common carrier can be expected to give the detailed attention necessary to maintain these uniform temperatures while hauling fruit cars through widely differing climates, sometimes over mountains in midwinter, special fruit messengers are trained and employed to accompany and care for these valuable shipments.

These men become expert in anticipating and forestalling unfavorable temperature changes in the cars under their care. There must be enough artificial heat but not too much. Abrupt changes in temperature are avoided. Freezing must be prevented at any cost.

The fruit messenger is not confined to the banana trade, but is nowhere else so important nor employed so constantly.

RIPENING TOMATOES

Similar in some respects, but with totally different trade connections, is the business of ripening and repacking green-wrapped tomatoes. Tomatoes grown under field culture are now on sale almost every day in the year. We draw on Mexico for increasing thousands of carloads during the winter. Florida also ships thousands of cars. California contributes to the winter supply.

Tomatoes for such long-distance shipment must not be allowed to ripen on the vine. A tomato ready for the table has but a short period of marketableness. It may, however, be picked before the first tinge of color appears and with proper handling ripen satisfactorily. The rule is that when the pulp has so developed that the seeds are not cut when the tomato is sliced with a sharp knife, the proper

maturity for "green-wrapping" has been reached. Practically all of the tomatoes shipped from Mexico and our Gulf states are "green wrapped."

As most of these tomatoes are picked by unskilled labor, the size and a slight whitening toward the blossom end of the fruit are the practical guides to the pickers. Inevitably there is a lack of uniformity in the maturity of the fruit brought in. Packers will throw out "ripes" but if on piecework will do little if any further sorting.

Green-wrapped tomatoes are packed with paper wrappers like oranges and boxed apples. They are not shipped under refrigeration, as the ripening process must not be too seriously arrested. Naturally, they arrive in northern markets showing very uneven ripening or progress toward ripening. They are highly unsatisfactory to the retailer. Too few are ready for immediate consumption and there is too much uncertainty when, or at what rate, the remainder will ripen.

Therefore we have the dealer who is a tomato ripener and repacker. He buys the green-wrapped stock as it arrives, unpacks and sorts it. Any which are coloring rapidly are repacked for immediate sale to jobbers or retailers. The rest are held in ripening rooms at fairly even and warm temperatures and are repacked as the desired degree of color is attained. This is not a side issue in the trade but is an industry handling and processing (without manufacture) thousands of carloads of high-priced tomatoes annually.

CELERY WASHERS

The greater part of the celery which comes to the larger markets is shipped "in the rough." The crop is harvested by running a horse-drawn blade under the standing row of plants. Each plant is then trimmed roughly, leaving a part of the root, and necessarily some soil, attached to the branches. Only the dead or wilted outer leaves or branches are pulled off. In this condition the celery is crated for shipment.

Such celery is not acceptable to the retailer. The consumer does not care to buy vegetables with black soil adhering or with leaves soiled from lying on the ground after digging. So celery, as taken from the car in the city markets, must be washed. The washing is a disagreeable winter job, unless special facilities are provided. Washing on any considerable scale requires more space than the average wholesale dealer wants to spare. It also calls for a special crew. Most dealers prefer to pay more for washed celery than to do the washing themselves.

This has made it profitable for certain merchants to specialize in washing celery. They buy carloads in the rough, wash, trim, and bunch it or even repack in the crates for sale to the jobbing and retail trade. The large bunches, usually of one dozen stalks, neatly trimmed and tied, are the product of the celery washer, not of the original shipper. If celery were prepared in this form at shipping point there would inevitably be too much further shrinkage, wilting, and loss before it reached the table. A little washing and chilling has been done at shipping points, but probably on the whole at rather greater cost than when done by professional washers in the markets.

Celery often arrives in the markets showing much decay. The tops and outer branches may be largely consumed by soft rot. The appearance of the plants may vary from a healthy green and white, through a sickly yellow to a brown or black and slimy mass. The washer then becomes a salvager. From crates which appear little more than half full of spoiled celery are salvaged the celery hearts, which are so much in demand.

Celery in such bad condition requires more than the ordinary washing and trimming. All the slimy branches must be cut away and the tops trimmed below the last trace of decay. The crown of the plant must be trimmed down in proportion. Washing must be thorough enough to remove every suspicion of contact with decayed material. Much labor is required in proportion to the amount salvaged.

Thus a sub-class of celery washers sometimes takes the worst cars or parts of cars from the regular washers, for the purpose of salvaging hearts alone. Their establishments are not attractive. Their labor is not exactly inspiring. Their raw material is repulsive. Their output is in great demand. Boards of health seem to have found no good reason to forbid its sale, for it seems that the usual decays of celery do not render unfit for food any celery tissue not actually broken down.

SPECIAL BUSINESS SERVICES

Other special handling processes and businesses may occur to the reader, for the field is a broad one, but those cited serve to illustrate the extent to which specialization has gone already in the city merchandising of fresh fruits and vegetables. Turning now from the physical handling of the goods we find as marked a tendency to specialize in the performance of many marketing functions. There are also many special services, not themselves a part of the marketing process, designed to give special help to marketing agencies. Groups rendering such services are making a living from the fruit and vegetable industries, and their existence is a phase of the evolution of the industry.

Considering first some typical business services which center at the market rather than at the point of origin we find among the most prominent certain inspection services.

PRIVATE INSPECTION AGENCIES

The Department of Agriculture was not first in the field of fruit and vegetable inspection. For many years, individuals here and there have inspected goods for distant owners. Certain railroads have developed well-organized inspection departments, and while these are not confined to fruit and vegetables it is the necessity for watching these shipments which justifies the service.

Today there are far more private inspectors at work on fruits and vegetables than when the Government entered the field. The Government's activity seems to have called attention to the importance and possibilities of such service.

The private agency has certain advantages in its competition with official inspection. The latter must remain impartial, no matter who pays the bills. The former is at liberty to become the counsel, witness, and special pleader for its employer. Government inspectors must confine themselves to statements of ascertained fact. Private agencies are free to express opinions as to remote causes and degrees of responsibility for conditions found. Government inspectors must be thorough even if some applications for inspection are declined. The private agency is free to spend as much or as little time on each car as it pleases, and in times of plenty it can make hay while the sun shines by "inspecting" a phenomenal number of cars per man per day. One main reason for the success of private agencies is their ability to write certificates on all cars requested. This system also enables them to charge a low rate per car.

Another reason for the present vogue of the private inspector and the private inspection agency is that Government inspection has not been available in several cities of considerable size. Railroads have a legitimate need for inspection on many products which Congress has not authorized the Department of Agriculture to inspect.

The railroads are the largest employers of private inspection services and employ them chiefly for the purpose of reducing the amounts to be paid out in claims for loss and damage in transit. The carriers feel that their fruit and vegetable business gives rise to too large a proportion of the claims which they pay. Naturally the shipping public is sceptical of the reports of private inspectors thus employed.

At important railroad gateway and diversion points there are men whose chief business is to inspect passing cars on behalf of distant shippers. From a hasty examination they advise the shipper as to the apparent suitability of the

car for diversion to distant markets, or warn him that the stock is not holding up well and should be sold at some nearby point. These men render a useful and much needed service such as could hardly be undertaken by a public agency.

CLAIM AGENCIES

If it is true as is sometimes charged that the railroads employ inspection services which are almost as much for defensive purposes as are their legal departments, it is also true that a partial antidote may be found in the many agencies whose services are offered the shipper in his efforts to collect for loss or damage in transit. Some of these agencies do a legitimate business. They know the procedure by which to secure prompt consideration of claims and can advise the shipper as to the real merits of his case. It is as much to his advantage to employ them to prosecute a difficult claim as to employ experienced lawyers to pass upon a title to real estate.

There are other claim agencies, the chief business of which is to solicit the privilege of filing claims for shippers or receivers of perishables. Their business is closely comparable to that of a certain class of lawyers known as "ambulance chasers."

These predatory claim agencies thrive chiefly in the large cities, and the claims which they handle are to a considerable extent developed by their own initiative. Their members or employees frequent the team tracks or other yards where cars of perishables are unloaded. They are self-appointed inspectors of both the goods and the cars in which they have come. They note every sign of deterioration in the products and every broken package. They search for leaks in the roofs of cars. They shut themselves in refrigerator cars to see whether a ray of light can be seen around the doors or elsewhere. If they discover anything which could reduce the efficiency of refrigeration, they have a basis for a claim, the prosecution of which they imme-

diately solicit. Whether the injury to the product has been real or imaginary matters little. What the agency chiefly wants is a basis for a claim. If it can be found in the equipment, they have the carrier on the defensive from the start.

This is a rank abuse of a legitimate service. The fact that so many men have been able to make a living in this way indicates that the railroads must have been victimized in a great many cases. Possibly they have been the sufferers from testimony which was none too conscientious. Possibly also there has been injected an element closely allied to blackmail, for the railroads do not like to be sued by their patrons.

The claim business is such an important matter that nearly all large shippers of perishables have claim or traffic departments to handle their own controversies with the carriers. The independent claim agencies, legitimate and predatory, are serving or exploiting those shippers whose business is not large enough to justify the constant employment of a man for that purpose or who are not aware of the possibilities of increased income to be had by mulcting the carrier.

AUCTION REPRESENTATIVES

Another type of service rendered by a specializing group is that involved in representing distant shippers to the organized auctions. The auctions require their patrons to be personally represented when their goods are offered for sale. This makes it necessary for shippers to station members of their own organizations at the auctions or to employ someone resident in the city for that purpose.

The auction representative may be a broker or otherwise engaged in business. He may be given large discretion as to whether specific lots of goods shall go to the auction or be placed with commission houses for private sale. He must decide on any particular auction day what cars to offer and

which to hold over. In the auction room he must be alert to withdraw a car or a line on the first bid if he thinks the starting price indicates a sale at a sacrifice. The usual rule forbids withdrawal after the second bid.

If a man represents a number of steady patrons of the large auction companies in New York City he may have little time or need for any other business. His is an occupation made possible and necessary by the growth of organized auction selling. Many imported fruits and vegetables are sold at auction, all requiring this special service.

The auction itself is a highly specialized marketing agency involving other special services. Auctions and auction selling would justify a chapter in a study such as this, for they are an outstanding product of the evolutionary process. They are rather fully discussed in Department Bulletin No. 1362 of the Department of Agriculture, which was prepared under the general direction of the writer. Extended reference to them is here omitted, in keeping with our purpose to include nothing which can be found elsewhere with substantially similar treatment.

BUYING BROKERS

The broker who sells the loaded car f.o.b., rolling, or delivered, is a well-known factor in present-day marketing. There are in our larger cities brokers of another class not so well known, as each serves his own nearby constituency.

These men buy for dealers in smaller cities which may be anywhere within an overnight rail haul from the distributing center. Their customers send their orders usually by telephone or wire, and the selection and purchase are left to the judgment of the broker, who also attends to the trucking and reshipment.

The buying broker is not a speculator. He has no store of his own, although such a business as is here described may be carried on as the brokerage department of a larger house. As a specializing agent in marketing it is his busi-

ness to give the dealer in a smaller market all the advantages of trading in the larger market without the necessity of visiting the larger town in person and without the risk involved in placing orders directly in the hands of interested parties who themselves have goods for sale of the kinds ordered but perhaps not of the best quality which could be had for the price. Essentially he is an agent standing between a dealer in a small town and a larger dealer in a larger town. If he is a good judge of qualities and knows the people with whom he deals, he can save his client far more than his brokerage.

The buying broker may secure a part of the goods ordered by buying at the auction, others from the commission men, and still others from wholesale produce merchants who own what they sell. It is his business to know where, in his city, the desired goods can be bought most advantageously. His next duty is to get them out of town on the first train or boat which will take them where they are wanted.

Many merchants in cities along Long Island Sound buy their supplies in New York City through such agencies. Philadelphia does similar business with many Pennsylvania towns.

The efforts made by shippers to place full cars in smaller and smaller markets has tended to curtail the field of the buying broker, and some have expressed the fear that their business is doomed. The appearance of a larger percentage of graded goods on the market makes it safer for the out-of-town buyer to order direct from the carload receiver, but we are still far from the time when the personal judgment of an experienced buyer on a large market will cease to be of great value.

The special services of these men make it more advantageous for the buyers in fairly large towns to trade in the great city than to buy carloads direct from shipping points. The purchased car may prove to be just what was wanted or only an indifferent delivery. When it is on hand it must be sold. It may last several days and make it necessary

during all that time for the dealer to handle less satisfactory goods than his broker could have sent him from New York. The enormous volume and wide range of qualities offered in the great receiving centers make it advantageous for dealers within a considerable radius to buy in these centers. The buying broker makes such buying so much safer than it otherwise would be that it is hardly too much to say that in many cases he makes such buying possible.

COUNTRY SERVICES

Thus far we have considered only specialized functions which operate at, or in connection with, the terminal markets. There are perhaps as many to be found in connection with the preparation and shipment of the goods. Just as the threshing machine, which is too expensive equipment for the average grain farm, moves from place to place doing a particular part of the farm work of the community, so are many special services being rendered to the fruit and vegetable industries. Some of these involve large investments and permanent installations. Others require little more than experience and skill.

POTATO LOADERS

The sizing machine, commonly called a potato grader, is a familiar part of the equipment of most potato storage houses. In many sections they are operated in the fields for handling both potatoes and onions.

In districts where potatoes are dug in hot weather and shipped directly to market for immediate use, it is important to get the stock out of the sun and into the car as promptly as possible. Operations are delayed seriously if machine grading in the fields is attempted. Turning the grader by hand is laborious work. A power outfit for each farm is expensive.

The problem has been solved in New Jersey by the "po-

tato loader." His outfit consists of a power-driven sizer mounted on a wagon, truck, or specially constructed platform, which can be run alongside the car door. The crew should consist of at least three men.

The potatoes are hauled to the car field run and unloaded on the grader's platform. He sizes or grades them as desired by the grower. Grading requires two men at the belt or screen to pick out blemished stock. Sizing or "machine grading" involves nothing more than screening out the small potatoes and loose earth. If the potatoes are not otherwise "field run" it is because some grading has been done by the pickers in the fields.

The potato loader sacks the stock as it comes from his machine in the sacks furnished by the grower. These are weighed and made uniform as to weight if desired and are then loaded in the car for shipment. The loader's charge is by the car or hundredweight. With a good crew he can handle the output of several farms.

LETTUCE PACKERS

The extensive production of lettuce under winter irrigation in California has called into being a special service agency somewhat comparable to the potato loader. The itinerant lettuce packer helps out the grower by relieving him of the whole harvesting and packing job. He is equipped with a portable packing outfit and has his own crew. He employs such additional labor as is needed, cutting the lettuce, hauling from the field, trimming, packing, icing, and loading the crates in the cars. He may or may not undertake the sale of the crop for the grower.

The operators of this type move up and down the lettuce districts with the progress of the crops. The climate of the Imperial Valley permits the planting of a succession of lettuce crops, and the harvest extends over five to six months. This exceptional condition has made the business just described a commercial possibility.

COMMERCIAL ASPARAGUS PACKERS

The season of 1925 saw a new specialized service rendered to asparagus growers of central Georgia. The packer furnished all labor for washing and trimming, twine for bunching, moss for packing, and obtained special crates from the Pacific Coast. These crates, incidentally, were of white pine and cost, delivered, only 17 cents each, being both cheaper and more attractive than any obtainable locally. The operator did the grading, packing, and so forth, for 60 cents per crate of 12 bunches.

INDEPENDENT PACKING HOUSES

In the older citrous districts of Florida there are privately owned packing houses which grade and pack the grower's fruit for a charge per box. They are patronized by producers who wish to market their fruit under their own grades or brands and whose operations are not large enough to justify the expenditure necessary to equip and operate a packing house.

Similar establishments are found in other fruit sections, but Florida citrous fruits are usually washed and brushed or polished mechanically. These processes require rather expensive machinery and fairly large space under roof for its installation. The apple grower can do about as good a job of packing at home as can be done in a commercial packing house if he has sufficient labor and time. The orange grower cannot. Therefore, he is almost compelled to pay for commercial packing service unless he belongs to an organization which owns its own packing facilities.

The owner of the independent packing house is very likely to drift into the actual marketing of at least a part of the fruit he packs. He may handle it as an agent for the grower or he may buy outright. In any case he is a fixture in the neighborhood and his business is incidental to the local marketing need. With the present urge toward

more cooperation in areas of concentrated production, the independent packer must give a real service if he is to survive.

SWEET POTATO HOUSES

Many students feel that the southern sweet potato is our most neglected food asset. The quantity which can be produced is almost unlimited. The actual production is enormous. The proportion of the total crop which goes to waste in winter storage is discouraging. Finally the losses in transit and in the markets seem entirely too large. The crop therefore appeals to many as offering inviting opportunities to make money by improving present methods of handling and marketing.

Extensive experiments in curing and preservation have proved that relatively high temperatures during the early part of the storage period give best results. The proper conditions of temperature and ventilation for the rest of the season can be maintained only in buildings especially equipped to maintain them.

These discoveries resulted in a mild epidemic of curing-house construction which swept over several southern states about 1915. Promoters campaigned over the country selling patented house plans. In some cases old warehouses were reconstructed. In others new buildings were erected which followed with varying degrees of fidelity the plans approved by Federal and state investigators.[2]

Every degree of success and disappointment attended these efforts to hold large quantities of southern sweet potatoes for winter sale in the North. In many cases, perhaps in a majority, the expected success was not achieved because the stock was too roughly handled in the field and in subsequent handling before it reached the curing houses. Difficulties were experienced also in disposing of indefinite quantities of these moist-fleshed sweet potatoes in northern cities in competition with the dry-fleshed New Jersey type

[2] *Storage of Sweet Potatoes,* Farmers' Bulletin No. 1442.

which had long since established itself as the accepted sweet potato of northern commerce.

In spite of all mistakes and disappointments the commercial curing house has come to stay. A number are definitely successful and are performing a special service at the producing end somewhat similar to those of the banana and tomato ripening houses in the terminals. The sweet potato is not simply stored. It is cured and then stored. The work can be done on the farm in small buildings of special construction and with heating systems carefully controlled, but to secure large quantities of fairly uniform quality commercial concentration and storage are essential.

In the present development of this industry two processes are far from perfection and appear to be the limiting factors militating against the largest success. First, the serious consequences of bruising are not realized by those who handle the crop in the field, in transit, and in storage. Because the cut or bruised root does not become an immediate loss, cuts and bruises are inflicted with little thought or care. Second, there has been no systematic and uniform grading on any large scale.

It is true that the sweet potato does not lend itself readily to close and uniform sizing. There is enough irregularity of shape in any lot to preclude even the degree of apparent uniformity which can be obtained in a lot of Irish potatoes. Still there is room for vast improvement over present practices, and until these have been thoroughly tried out no one can foretell the future of this industry.

The curing house has already put the southern sweet potato on the winter bill of fare of nearly all cafeterias and popular-priced restaurants in the larger cities of the Great Lakes and Mississippi Valley regions. It now enjoys a long marketing season, and the roots which actually reach the consumer are usually of good quality. The losses are still heavy, and the product is perhaps as quickly injured by chilling as any perishable which is in common use, but the specialized service of the curing house marks an epoch in

the commercial history of the sweet potato industry, the evolution of which is still far from complete.

SPECIAL LABOR GROUPS

The division of labor has extended also to the groups whose services are little if any above those of unskilled workers. Some groups are unions holding monopolies of certain services with great tenacity. Such a group moves practically all fruits and vegetables from the piers to the street in New York City. They are called "pier truckers." Buyers' trucks and wagons are not generally admitted to the piers. They await in the street until their goods are brought out by the pier truckers after selling is over. The loss of time is often a serious matter to the buyers, but the monopoly of the pier truckers seems to be absolute. The cost per package of this one service is often more than the freight for several hundreds of miles.

Another group, not numerous at any one point, is occupied chiefly if not exclusively in recoopering broken packages. These are usually railway employees, but they have come into being as an incident to the evolution of this industry.

Broken packages are the basis or the excuse for an immense number of claims against the carriers. If they can be repaired without disturbing the contents, as by renailing a slat on a celery or lettuce crate, it pays the railroad to have the work done.

Broken packages in cars arriving for auction are all piled separately and usually sell at a sacrifice, job lot, price. The railroad is charged with the difference between this price and that brought by the unbroken packages of the same brands or varieties. Recoopering thus becomes an especially important matter when the goods are billed for delivery at the auctions.

There are, of course, a great many labor groups which function in connection with harvesting and packing opera-

tions. Some of them are highly skilled. Some are resident and some itinerant. Around each specific operation has developed a group of specialists to meet the need for speed and precision of movement.

RELATED SERVICES

The field of related services is too large to be analyzed or catalogued in a work of this kind, but passing note may be taken of the package industries on one side and the trade press on the other.

The manufacture of containers for fresh fruits and vegetables is an enormous industry in itself, carrying on its own experimental work to keep pace with the ever-changing needs of the trade. The total number of wooden packages of all sizes must approach if it does not exceed a billion annually. Yet the container business, vast as it is, is wholly incidental to, and dependent upon, the fruit and vegetable business. Package manufacturers must adjust themselves to every change in the needs or habits of the produce trade. They may suggest changes or improvements, but they cannot force them.

The trade press is varied in its character and serves each particular branch of the industry. The wholesale trade has its special group of papers on the one hand, and the commercial growers of fruits and vegetables each have their specialized publications on the other.

The larger cooperatives have their own "house organs."

Credit rating agencies publish well-nigh complete rosters of the dealers in fruits and vegetables, with indications of their financial standing which often serve as guideboards to the wary. The total array of special publications solely dependent on the national trade in fruits and vegetables for their support forms an imposing list.

As this chapter is designed to be suggestive rather than exhaustive we close these sketches of special marketing functions with the reflection that it is as true of industries

as of men that no one of them liveth or dieth to itself. Each has its multitudinous and intricate contacts and relationships. Its evolution forces changes and adjustments in many others. To pursue these influences to their uttermost effects would be to analyze the whole problem of food distribution.

XIX

CREATING DEMAND

Dangers of generalizations. Producing on faith. Most raw staples never advertised. Advertising prepared goods. Advertising fruits. Effect of organization. Limits of successful advertising. Advertising potatoes. Not addressed to consumer. Reasons. Latent demand. The value of novelty. Producing on faith. Faith in the market. Sale by display. Faith justified. Who should advertise? Monopoly products. Oranges and cranberries. Unadvertised crops expand. Advertising by display. In usual trade channels. In local markets. Elements of desirability. Uniqueness. Cranberries vs. horseradish. Other factors of desirability. Spinach, kale, and cabbage. Comparisons and contrasts. Carrots and parsnips. Proposed national advertising. Why unsound. Changing popular food habits. The immigrant. The native. The limits of demand. Industries affected. Uneconomic campaigns. The "eat more" appeal. Conclusion.

A CRITICISM frequently heard of farmers in general is that they produce with no thought as to how or where or how much they can sell.

The writers of economic textbooks are generally agreed that the only justification of production is to satisfy a demand. The most recent works are the most insistent on the importance of studies of demand as the basis of production. The logic of this position appears unassailable. No manufacturer dares tie up large amounts of capital in the production of goods for which he has no reasonable assurance of a market. Demand, however, may be either active or latent, existent or prospective. The immense industries which we are studying have sprung into being since our first economic theories were formulated. Their history and experience may not disprove classical economic theory, but they do prove that generalizations based on accepted theory are not always applicable.

It is easy to drift into a grave error of procedure as to a product or group of products if we allow ourselves to be too much influenced by general statements of economic

policy, however sound. Recent fruit and vegetable history is full of examples of the successful marketing of goods which were produced on faith in advance of the existence of any actual demand for them.

The economist whose book contains a chapter on advertising usually and properly includes a discussion of the creation or stimulation of demand. Such articles as safety razors, automobiles, and radio sets are frequently cited. Without challenging the correctness of the usual reasoning when applied to manufactured articles we maintain that it does not apply in the marketing of fresh fruits and vegetables.

MOST RAW STAPLES NEVER ADVERTISED

Concerning farm products it is generally maintained that the demand for the bread grains and similar staples is decidedly inelastic. The futility of advertising corn, wheat, beans, or potatoes to stimulate popular consumption is obvious. We are so familiar with these products that we refuse to wax enthusiastic over them. If the wheat growers should raise a great fund to advertise wheat, not any specific brand or type of flour or bread, not any breakfast preparation, or macaroni, or other wheat product, but simply wheat, the consuming public would smile and ask, "What's the idea?" The money spent in such a venture would be lost. Yet everybody knows the value of wheat products, and almost everyone uses them freely every day.

ADVERTISING PREPARED GOODS

On the other hand, we have all seen the successful advertising of patented preparations or trade-marked goods derived from the common grains, from beans, potatoes, and other products which it would have been useless to advertise in their raw state. The element of novelty or distinctiveness is secured by attractive labels or brands on packages

of convenient sizes. Other elements of desirability which help sell the goods are uniformity of quality and stability of price. These two factors—uniform quality and stable price—can but seldom be guaranteed in the raw product.

ADVERTISING FRUITS

Oranges, raisins, and cranberries are among the fruits most often cited as furnishing examples of what advertising can do to stimulate demand and build up an agricultural industry. Those who are enthusiastic over cooperative marketing also select the growers of these same products as examples for other groups to follow. The successful advertising is sometimes, perhaps generally assumed to be the direct result of the organization. Hence we have the argument, often advanced in favor of cooperative organization, that by this means only can farmers advertise successfully.

In every case of successful stimulation of demand for a fresh or dried fruit or vegetable on a large scale by advertising, the production has been limited to a rather well-defined area. In other words, the advertisers could stimulate demand without imminent danger of tremendously increased production, or the group was so small that the benefits of advertising could be confined chiefly to those who contributed to its cost.

ADVERTISING POTATOES

When potato growers have organized and attempted to do the same things, they have generally met with disaster. Their successful advertising has been addressed to the wholesale buyer and has been designed to convince him that a particular brand carried a guaranty as to variety, region of origin, and acceptable market quality. Little successful effort has been made to reach the consumer by this advertising, for several reasons.

First, the private consumer does not buy potatoes in original packages and so does not come to know brands. Exceptions to this rule are negligible.

Second, the consumer does not distinguish potatoes by variety except in a few cases.

Third, the appearance of the potato is completely changed in the kitchen before it is seen by most of those who are to eat it.

Fourth, it is not true that potatoes from any region are uniformly better than those from all competing regions, nor is the same variety from the same region equally desirable in all years, nor does it bear a constant quality-relationship to the same or other varieties grown elsewhere.

Back of the whole difficulty which attends the attempt to advertise potatoes profitably, lies the basic fact that the average consumer cares for only about so many potatoes. As he does not regard them as a luxury, he will not consume more because the price is reduced or because other frantic efforts are made to increase sales. To the average citizen the potato is not a subject over which to become excited unless the price rises to unusual heights.

LATENT DEMAND

But the recent market history of several fruits and vegetables is rich in examples of demand, created outright, or stimulated far beyond all former bounds, without any attempt by producers to reach the consumer by any sort of advertising. How then did the producer know that the demand existed? In some cases he has acted on faith, but far more frequently he has acted on the advice of a dealer who was confident of his own ability to develop a demand for the particular article. These dealers usually have shown their faith by a willingness to help finance the production of the crop.

The economist may be theoretically correct when he says "It is the height of folly to create goods and then seek a

market for them."[1] but this is exactly what the men who have developed our new commercial trucking areas have done, and it has been done in turn by the growers of each fruit and vegetable which was formerly unknown or known only as a novelty but which within recent years has become well known and widely used.

The fact is that there is an unmeasured latent demand for almost any new fruit or vegetable simply because it is new. Novelty is in itself an attractive quality in fresh foods as well as in many lines of manufacture.

Latent demand, or potential demand for a new or rare plant product, will often become active demand upon the mere exposure of the goods for sale in the retail stores and with no more advertising than inevitably attends the appearance of something new.

PRODUCING ON FAITH

The wholesale handlers of fruits and vegetables are among the keenest and most enterprising business men in America. Especially is this true of those who operate over large areas. Had they and the growers whom they have financed waited for a visible and measurable demand before they produced, comparatively few eastern consumers would as yet have tasted a cantaloupe from California or Rocky Ford; California artichokes; broccoli, or winter cauliflower; onions of the Bermuda type, or any of a dozen other well-known vegetables now in large supply.

There are literally hundreds of thousands of carloads consumed annually for which no known demand existed when production began. In each successive year of the last decade production has exceeded all known demand and has paid no attention to a reduced rate of increase in our population. The nation owes a profound debt of gratitude to the pioneering, venturesome, creative faith of the men who have added so richly to our choice of fresh foods.

[1] J. T. Horner, *Agricultural Marketing*, p. 6.

FAITH IN THE MARKET

In an earlier chapter it was noted that the city dealer in reaching out for supplies with which to lengthen the season for fresh products has stimulated production in new areas. He has shown his faith in the venture by advancing money on truck crops which the banks would not finance. He has both startled and delighted the consuming public by the suddenness with which he has spread his new and strange wares before us. His advertising has been chiefly by display. Such publicity as he has sought through printer's ink has usually been confined to the trade papers in an effort to reach the jobbers and retail dealers. Everybody along the line has expected to appeal to the final consumer by display.

As the first offerings of a new product have been absorbed, the dealer has gone further in his efforts to increase the supply. If he has made money for the grower on a little, the grower and most of his neighbors are ready to plunge. It is the habitual point of view of both grower and distributor that the market for a new product, or for a district which puts a product on the market at a new season, is unlimited. Almost invariably production has eventually exceeded the quantity which the markets could take at satisfactory prices and distress has come, with perhaps a scaling down of truck land values, but in the main every reasonable faith in the market has been justified and generally without any advertising in the ordinary sense of the word. Feature articles in the popular periodicals always describe the new regions or new products without expense to grower or handler.

Can the demand be measured in advance? Experience extending over some 10 years, during which we have had fairly satisfactory statistics of perishable crop movement and prices, is not reassuring except as to a few of the staples like potatoes, for which we have developed an inelastic demand. Again and again a given quantity of a product has

seemed to saturate the market, as when 4446 cars of cantaloupes were shipped from the Imperial Valley in 1914. But with a wider offering of the goods and their actual exposure for sale in more markets, especially in the smaller cities, consumption has expanded until the 1925 crop of 13,409 cars was absorbed at prices which were well calculated to maintain production.

Faith in a demand as yet latent has characterized the fruit and vegetable growers of the last generation. The dealers have shared and financed this faith, and we must admit that in spite of frequent overproduction in specific localities this faith has been largely justified. The tremendous expansion of these industries from year to year has been based not on a knowledge of what the demand was, but on faith as to what it would be when the goods were actually displayed.

WHO SHOULD ADVERTISE

Successful nation-wide consumer advertising for a fruit or vegetable seems to be possible only when some of the elements of monopoly are present.

If the cost of the campaign can be distributed among the whole body of producers and distributors, there will be a monopoly of benefits among the advertisers.

If the product is so adapted to specific uses that nothing else can be substituted with complete satisfaction, there is present the monopolistic factor of uniqueness.

Oranges, raisins, cranberries, prunes, meet one or both of these conditions, and raisins and prunes are really the products of manufacture. This reduces the list to oranges and cranberries.

Without access to all the figures, the writer is inclined to grant that the widespread advertising of California oranges by the California Fruit Grower's Exchange, and of cranberries by the American Cranberry Exchange, has, in all probability, resulted in a profitable expansion of the markets

for those fruits. We know that immense sums have been spent in advertising other fruits and lesser sums on some vegetables, but evidence seems to be wholly lacking that such advertising when addressed to the consumer has been profitable.

If it be argued that Florida grapefruit has been widely advertised and that its consumption has forged ahead by leaps and bounds, we will submit that the consumption of winter-grown tomatoes from Florida, California, and Mexico has increased with like rapidity; that celery shipments have risen from 9,729 cars in 1920 to 20,753 in 1925; and finally that lettuce shipments were only 13,788 cars in 1920 and were 37,040 cars in 1925, with practically no consumer advertising for any of the three.

Distribution and display have sold the celery, the tomatoes, and the lettuce. We believe that distribution and display have also sold the grapefruit and every other fruit or vegetable, whether or not it has been advertised through the press to the consumer.

In the light of the obvious facts, it seems that the advertising by the two associations which appears to have been successful owes its success largely to the degree of price control which they have been able to exercise. No one can tell how far, if any, below its present volume the demand for these fruits would be if they had been given the same distribution and the same price stability without the expenditure of a dollar in printed advertising.

Considerable sums have been spent first and last in advertising Northwestern apples to the consumer. Today the consumer buys this fruit from a pile on the fruit stand or from a bin in the chain store or from several open boxes displaying the fruit unwrapped. The consumer buys on inspection of the apples themselves, not by the labels on the boxes, nor by associating the goods with any advertisement he may have seen.

It follows from all these considerations that very little advertising of fruits and vegetables to the consumer is justi-

fied and that efforts to unite either growers or dealers for this purpose are ill advised. The marketing associations and shippers should acquaint the buying trade with the nature, season, and quantity of their goods. The trade papers are the best mediums for this purpose, although very few consumers see them.

If an absolutely new product is to be offered, it may be necessary to ship small lots on consignment in order to secure display and arouse the dealer's interest.

ADVERTISING BY DISPLAY

Every lot of a new or rare fresh fruit or vegetable bought by the jobber will be redisplayed to retailers. Every package bought by a retailer will be prominently displayed to consumers. Almost every sample bought by the consumer will be shown to or discussed with other consumers. The process of widening the outlet or stimulating the demand is automatic after the goods have been brought under the eye of the first handler in the consuming center. The problem is to get the goods into the regular channels of trade and start the series of displays. If this is done, the process will soon culminate in that most effective of all advertising, personal recommendations of the product by those who have used it to those who have not. Everyone who has watched the actual physical processes of merchandising these products knows that they are sold on display at every step from the freight car to the kitchenette.

The local gardener selling from a stall or wagon in his home market never thinks of advertising his goods in the daily papers. He does not flatter himself that his advertisement would bring one single customer to his place in the public market who would not come anyhow. He expects to sell by display to those who happen either by chance or custom to pass his way.

If this grower moves further from the city and ships his goods by the truckload to a commission merchant in that

same town, he still laughs at the idea that it would pay him to advertise. He knows that his goods will have, in other hands, substantially the same display to the consumers which he has always given them.

But if this same grower or his son moves 2,000 or 3,000 miles away and there raises fruits and vegetables which seem to him of wondrous quality and ships them to his home town and other eastern markets and fails to realize the profits which it seems to him he ought to make, he seems to forget all he knew about the actual, practical way of reaching the consumer and falls an easy victim to the propaganda of the man who urges an advertising campaign. His very distance from the consumer seems to make him feel that the consumer knows nothing about his wonderful products. He forgets that every crate or box or hamper which he gets into any city market is finally displayed to the very consumers to whom he is tempted to address an advertisement.

How can advertising any raw food product stimulate a demand which is not stimulated or created by the sight of the product itself? Only the blind fail to see what is offered them to eat, and the blind cannot read newspaper or magazine advertising.

The California Fruit Grower's Exchange has a dealers' service department which has specialized in showing dealers how to make the most effective displays in windows or elsewhere. A few other organizations have attempted some work of this sort. The theory is sound, for it is based on the fact that raw food products are bought largely by the

ELEMENTS OF DESIRABILITY

Can a line be drawn between those fruits and vegetables for which there is a notably elastic demand and those for which there is not?

Is it possible so to catalog the qualities or elements of desirability in these fresh products as to indicate which

may be sold in greatly increased quantity by constant display and which cannot?

We have noted that novelty or uniqueness adds to desirability and helps to sell the goods. Stability of price also appeals to the consumer. If these were the only considerations, we should expect to find the consumption of horse-radish increasing as rapidly as that of cranberries. Why not? Cranberries are associated with roast turkey and horse-radish with oysters and other crustaceans. Horse-radish is available throughout the year, and the price seldom fluctuates enough to discourage consumption.

The difference is that as cranberries have been offered through a longer and longer season, in larger quantities and with greater stability of price, consumers have learned that they are just as good with other roast meats as with turkey and about as good with boiled or stewed meats as with roasts. They have been found acceptable with meatless meals and in almost any menu in which an acid fruit is desired. They add attractive color to any combination in which they appear, pleasing the eye as well as the palate. They have then a considerable number of form utilities in the kitchen.

But what of our comparison? No amount of display, no price stability, no price reduction even, can arouse the enthusiasm of any one of us over the idea of doubling or trebling his ration of horse-radish.

The most important elements of desirability are then the appeal to the taste and the frequency with which the particular food can be eaten without satiety. Appeal to the eye is important, and convenience in use is another contributing factor. Complete use or freedom from waste appeals to many.

SPINACH, KALE, AND CABBAGE

When long-distance shipments of vegetables were confined to the Atlantic seaboard, the region around Norfolk,

Virginia, became noted for its crops of kale and spinach. Its winter cabbage crop for very early shipment was also important. With the opening of northern and eastern markets to shipments from the far Southwest a great spinach industry developed first around Austin, Texas, and later, on a still larger scale, in the region around and north of Laredo, Texas. Florida and the lower Rio Grande Valley have shipped large quantities of fresh cabbage during the winter months. None of the newer winter-gardening areas have shipped any considerable amount of kale. Outside the Norfolk district, its production, except for local use, remains negligible. Why?

Kale has but one use. It is boiled for greens. In this form it competes with spinach, Brussels sprouts, turnip greens, dandelions, and cabbage. Its general place in the menu is most closely comparable to that of cabbage, as it belongs to the same family and has a similar odor and taste. Kale does not lend itself to combinations, for its flavor tends to dominate others with which it is combined. It is useful only when kale is wanted, and then the average appetite is easily satisfied and does not care for kale again the next day.

Furthermore, kale soon grows tough and fibrous and those who attempt to use it through a long season are likely to suffer some disappointments. Thus analyzed, kale seems to lack any elements of desirability calculated to stimulate a greatly increased consumption under constant display.

Spinach is more quickly cooked than kale, is less likely to be fibrous, has no such pronounced odor or flavor, is more attractive when served because it keeps its fresh green color and by successive plantings can be had through a longer season with no decline in quality. It is less aggressively dominant in combinations. Spinach-and-egg has become a staple dish in the average cafeteria. There is no other vegetable so well suited to the same uses which can be had so cheaply and of such generally good quality.

This comparison brings out some of the elements of desirability in spinach which have prompted an enormously increased consumption with no advertising other than constant display at a relatively low price.

Carload shipments of spinach have grown from 3,089 in 1920 to 7,910 in 1925 and to 10,488 in 1926. This has been largely the result of developing the industry in relatively new areas. Meantime no new area has swelled the total shipments of kale.

CARROTS AND PARSNIPS

A similar study would show that bunched carrots have become one of the important winter and early spring vegetables moving in carloads from Texas, Louisiana, Mississippi, and California and the south Atlantic Coast. These compete with the stored carrots from western New York and other northern producing regions and result in what appears to be a much larger total and per capita consumption.

There has been no corresponding growth in the production and use of parsnips. They are shipped from the winter-gardening areas in relatively small quantity and do not appear to be growing into large commercial importance anywhere. Parsnips, like kale, have a pronounced flavor and are not adaptable to a wide range of uses. They do not blend well into combinations. They are desirable only when one wants parsnips, and the average consumer does not want them often.

Carrots have several elements of desirability. They are attractive in color, lend an agreeable flavor without dominating every combination in which they appear, and are enjoyed by many persons much more frequently than they could possibly force themselves to eat parsnips.

We can go through the entire list of popular fruits and vegetables and find in each a group of desirable qualities which have prompted its wider use as soon as it was dis-

played through a longer season at prices within the reach of the people. Studying the subject in this way, we are forced to the opinion that advertising to the consumer has played a negligible part in developing or stimulating the consumption of any one of them and that whatever money has been spent in campaigns to reach consumers through the press has been largely wasted. Chain stores advertise such products periodically and locally with good results. A single "chain" sells about 55,000 carloads annually.

PROPOSED NATIONAL ADVERTISING

During 1925 and 1926 the national trade organizations in the fruit and vegetable industries had under consideration a project for launching a nation-wide advertising campaign to stimulate the greater use of fresh fruits and vegetables in general. It was not proposed to push any one product or the products of any one region. The idea seemed to be held by those favoring the project that the public could be persuaded to increase the proportion of fresh vegetable food in its diet by a printed appeal supplemented by posters and other publicity devices.

The statistics and arguments presented in favor of the enterprise were drawn largely from the field of manufactured and branded or trade-marked goods. The chief difficulties in the minds of many of the leaders in the industry centered around the problem of an equitable distribution of the financial burden. It seemed to be felt that if all who grow and distribute these products would share the expense of the campaign the enterprise would be justified and the industry stimulated to the great advantage of all.

This is perhaps a natural state of mind for men who have helped, consciously or unconsciously, to push new fruit and vegetable areas to the point of overexpansion. They feel that the markets ought to take all that these areas can produce. They have seen several "Eat more" campaigns during and following the World War. They fail to realize

the reason for the great increase in the consumption of some of the goods they handle. They do not realize that nothing they can say through the press can be half so appealing as the constant display of the products themselves and that this most persuasive appeal is being made continuously as an incident to the ordinary processes of trade.

Notwithstanding the great interest in this proposed advertising campaign it did not materialize. Attractive as is the proposal it is basically unsound for this particular industry whose products are unlike those of manufacture. The people will eat every day. Their food habits can be changed, but not to any great extent by the advertising of dealers in any one group of foodstuffs, especially a group which is sold so very generally on display and bought by individual selection.

CHANGING POPULAR FOOD HABITS

The exploiters of fruit and vegetable areas old and new, and the energetic distributors who have developed hundreds of carload markets in small towns which formerly received only express shipments, have aided in changing the food habits of our people more than most of them realize. Our immense industrial populations in the cities are largely foreign. Most of their habits are of necessity changed in their new environment. In many cases their food habits are largely made over. Naturally they must eat what is offered in the markets. We may import for them certain things for which they will pay the price, but not their fruits and fresh vegetables. These they must select from our native supply. Naturally they are led by what is offered in abundance and at prices within their reach. The elements of desirability which we have mentioned determine what their choices shall be.

Among native Americans there is a waiting demand for any new or exceptional offering. We want to sample everything we see. A product which appears out of season

creates its own market. The very fact that a product is so scarce and dear as to be out of the reach of the many commends it to the few who have the price. We do not eat fresh strawberries in January because they are good. They are in fact the poorest in flavor which the market ever affords. We shall have nearby supplies four months later which will be infinitely better and at one-fourth the January price or less. Yet we buy some of those winter berries just for the novelty of having them and possibly with the secret hope that our friends who are coming to dinner may be led to believe that we can afford them.

But the great wealth of fresh fruits and vegetables came just as the meats from the West were ceasing to be the cheapest in the world. As increasing millions of native Americans found their occupations in offices and in trade, considerations of health and taste prompted a change from the diet of a generation before. The increasing abundance of fresh foods has made the transition from a bread-and-meat diet very easy. The selection of the particular fruits and vegetables to be most largely used has been determined by the considerations discussed in this chapter. The change has been profound. We would hardly realize what has happened had we not begun to ascertain and record the carload movement of these products during the World War. We now have the facts for a period which is long enough to show what is going on.

THE LIMITS OF DEMAND

The purchasing power of the American public has been so great since the World War that there has been a ready response to the efforts of good salesmanship on behalf of almost anything for which an advertising campaign could be launched. This has given rise to a tendency to think of the home market as almost unlimited.

The group engaged in the national distribution of fresh fruits and vegetables, and the larger group who have aided

them in developing new regions, now face the difficulty of finding outlets for the normal and potential production of these crops. They realize that, broadly speaking, there has been little coordinated effort either in their production or sale.

There is never a year when all of the truck crops grown on a large scale bring disappointing returns. Every year some important districts make money on some major products. This seems to be enough to stimulate plantings.

The industry has now reached the point where it must choose between a reduced rate of expansion and a permanently lower price level. Neither program is a pleasing prospect. Other influential business groups are affected. Nurserymen and seedsmen must suffer if plantings are curtailed. Manufacturers of spraying equipment and of chemicals for dusts and sprays want increasing rather than diminishing acreages planted. Package manufacturers have a similar interest in an ever-increasing volume of production. So also have the carriers. The interests of fertilizer manufacturers are identical with those of the nurseryman and the seedsman.

All these groups are accustomed to advertising their own products or services. It is not strange that they are ready to foster campaigns to stimulate even greater consumption of the raw products upon which the welfare of their own enterprises depends. Some of these groups have led already in "campaigns" the economic wisdom of which is open to question.

The point to be remembered is that many of the products in the fruit and vegetable group are highly competitive with each other. Next they are competitive with canned and preserved products which are the output of another branch of the same industry. If any material artificial stimulation is possible, it must almost necessarily be to the advantage of some one fruit or vegetable at the expense of others, or to the advantage of one group at the expense of other groups.

A program of stimulation destined to have such results should not be financed by the producing or distributing group as a whole. The final economic results cannot justify the expenditure. The American public eats what it likes and all it wants. No such numbers of human beings were ever so well fed since time began. There may be increased purchases of food per capita as a consequence of even greater carelessness and waste, but this appears improbable. We already are wasteful enough.

Inevitably then, advertising can do no more than cause slight voluntary shifts in the food habits of the masses. A gain for one product means a corresponding loss for another and usually the loss will fall in the same group. "Eat more" campaigns have run their course. Their original appeal was patriotic not gastronomic.

The men who control the great commercial supplies of perishable farm crops, especially those at long distances from market, should realize that henceforth the total demand will grow in about the same ratio as does our population. Improved distribution may bring more of these goods before the people in small towns and by display induce larger or more frequent purchases than at present, but this will not greatly increase average per capita consumption of fruits and vegetables as a whole.

Money should not be wasted in advertising with the forlorn hope of creating a demand which will absorb a flow of perishables increasing during the next five years as it has in the past. Intelligent leadership should direct its attention to a critical study of the districts to be developed and those to be abandoned and to the products which possess the qualities of permanent popularity as against those for which the demand will never be proportionately large.

(R. River)

XX

MARKET PSYCHOLOGY

Importance of the state of mind. Changing concept of the market. Of supply and demand. Psychology of the auction market. Bidders' motives. High and low prices. Sacrifices. The psychology of produce row. Why prices rise. "Follow-the-leader" psychology. Goods in strong hands. In weak hands. The psychology of speculation. Tends to maintain the price. Guiding the public mind. The psychology of the panic. Rapid declines check buying. Widen margins. Affect consumption slowly. Two alleviating forces. Chain stores and street vendors. Needless sacrifices. The psychology of defeat. Situation in 1924. The potato crop. The psychology of low prices. On dealer. On commission merchant. Psychology of the consumer. Effect of stable price. Of imposition.

In this chapter we shall attempt to analyze some of the forces which exert profound influences on the prices of farm products, especially the perishables. These forces have not been given prominent consideration in any of the well-known works on marketing, and the reader must judge whether their importance is here overestimated. We shall attempt a partial answer to the question. To what extent are the prices and movement of fruits and vegetables into consumption governed by the state of mind of the growers, handlers, or consumers?

We have long been taught that prices are made by supply and demand, but these terms do not mean exactly what they meant when the classical economists first made them famous. They were formerly spoken of as though they constituted an immutable law, quite beyond our control. In recent years we have found that they are largely what we make them. We have discussed latent demand in a preceding chapter and have shown how quickly it has expanded to astonishing proportions when tempting perishables have been kept on constant display. Since this demand has been found to be so large, we might naturally

expect prices to be governed almost wholly by the supply. This may be true in a broad way, but the history of the fruit and vegetable trade is so punctuated with exceptions that the rule loses much of its significance.

CHANGING CONCEPT OF THE MARKET

When we say that supply and demand determine price we are apt to picture a pile of goods and a group of buyers, a sort of auction market.

In the days of overland caravans, when water transport was all under sail, when no regular schedules could be maintained between any market and a distant producing point, when the visible supply was the whole supply and nobody could tell when more would arrive or at what price it would be held, then prices may have been fixed by measuring the present supply against the present demand. There could be little discounting of the future even though nearly all commerce was in relatively non-perishable goods.

Today we have a trade in highly perishable foods running into hundreds of millions of dollars and carried on over longer distances than were ever traversed by the greatest caravans of the Old World. Our concept of the market for fruits and vegetables contemplates only a momentary supply to meet today's demand with a steady flow of goods to come as needed from day to day or from week to week.

THE PSYCHOLOGY OF THE AUCTION MARKET

Perhaps the only place in all the fruit and vegetable trade where conditions approach the old concept of a market is in the fruit auction rooms in our larger cities. Here the day's supply is visible. The demand is for but a day's needs. Competitive bidding quickly fixes a price level. Everybody comes back the next day and repeats the process.

But this picture of the auction market is not quite complete. There are usually competitive goods in the hands of

wholesale dealers. Those will be on sale after the auction is over. They may sell at either higher or lower prices. These outside goods influence the bidding in the auction. Their owners may even go into the auction and bid to maintain a price at which they can sell their stocks without loss. A price level is thus established at a higher point than would have been reached by the free bidding of those who actually wanted the goods. Is this price made by supply and demand or is it fixed by skillful handling of the mind of the group?

Is it not fair to say in such a case that the price has been fixed by psychological influences rather than by any nicely balanced adjustment between the amount actually available and the quantity actually needed to satisfy a fixed, constant, or predetermined demand?

This situation may be brought about by the bidding of a small outside group of dealers who do not want the goods. They risk having the goods struck off to them for the sake of the effect of a high price at the auction upon their already large holdings. When this happens, shall we not say that the small group has played the game more shrewdly than the larger group and has fixed prices by a purely psychological process? The auction price thus established will be quoted in the wholesale stores as the basis for prices of like goods until the next auction sale is held. The buyers' minds are adjusted to that price. They may pay it with little question. But is it determined by supply and demand or by the mastery of the situation by certain dominant minds?

The psychology of the auction room, however, may be very different. A skilled auctioneer selling a "line" of especially desirable goods which are scarce may arouse such competition among the bidders that they will force the price too high. The goods may bring more than they prove to be worth on resale. The buyers, in the heat of their own competition, lose sight of the price limits which the consumers will set. The psychological situation has established a high auction price. The consumer, seeing these goods on the fruit stand or push cart under a price card which makes them

seem an extravagant luxury, fails to buy. He is not under the excitement which determined the auction price. The vendor cannot create in the minds of the passing public the impressions and impulses which prompted him and his competitors to bid so indiscreetly at the auction. His high priced "line" sells slowly or not at all. Deterioration soon becomes apparent. His price is cut until he may unload at a serious loss.

We have traced this particular lot of goods through what are in fact two distinct and separate markets. In the first, the price was set by the psychology of a competitive group buying for resale. In the second and final market, the mind of the consumer controlled the situation and the price was lower than in the first. Consumer psychology will be considered later. We note, however, that the quantity of goods and the population of the city were the same in both cases. If the law of supply and demand was nearly so absolute and inflexible as many have assumed, these differing prices for the same supply of goods on the same day in the same city would not have been paid.

Auction prices may be determined by an entirely different state of mind on the part of the buyers. If a certain fruit has been moving into consumption very slowly and the visible supply remains stationary or gradually increases, the buyers may by common consent but without definite agreement force the offerings to go at a sacrifice. When the "lines" of that fruit are reached, the auctioneer gets no prompt bid. Finally someone bids at a price which is low by comparison with the prices of previous days. The auctioneer cannot get a raise. His pleas fall on deaf ears. The goods are struck off. The buyer is not inclined to speculate on a large quantity even at a low price. He takes, say, 10 crates out of a large lot. Instantly a swarm of buyers demand a share of the remainder at the same price, and the lot sells at the price established by the first sale.

In this case the group allows the first buyer a chance to take the whole line at a low price, betting in their minds

that he will take only a few and that they will each get a chance to share in the remainder at the same price. In fact, this mental attitude on the part of the buyers frequently seems to dominate an auction. Line after line may be sold at almost the first bid, the bidder taking only a part and a clamorous group contending eagerly for shares in the remainder at the same price. A crowd which will not raise the bid a nickel a crate will raise pandemonium in its effort to get a share of the goods at the bid.

Evidently there is no nicely adjusted relationship between the supply and any fixed or measurable demand in such a market. Whatever that relationship may be it is evidently not the sole determinant of prices.

It is this constant interplay of psychological forces in influencing or determining prices which has taught shippers that the auction is the place to secure the highest prices for the very best goods if offered in relatively small quantities when the general market is strong, while it is also the place in which goods may be ruthlessly slaughtered at prices farthest below their actual resale value in the same city.

THE PSYCHOLOGY OF PRODUCE ROW

Market reports on some one product on three successive days in the same city are sometimes like the following: "Demand and movement moderate. Prices unchanged"; "Demand good. Movement active. Prices firm"; "Demand strong. Movement active. Prices advancing."

If we question a dozen dealers in the wholesale market as to just why the price was advanced on the third day and not on the second, we may get a dozen different answers. There may be general agreement that several factors are contributing to higher prices for that product. There may be general agreement or wide disagreement as to whether a further advance is to be expected. Usually the prevailing opinion is that the supply has decreased or is about to decrease. Sometimes the weather is credited with the change.

Occasionally it will be said that everybody on the street has been expecting this rise for some days past. This last statement may be nearer to the true reason than any of the others.

The one explanation which will never be heard is that, "the firm of Smith & Brown raised their asking price this morning and as soon as the rest of us heard what they were asking we all asked the same." This is exactly what happens on Produce Row again and again. Some dealer, not too heavily stocked, risks losing a few sales by asking more than he asked yesterday. He may believe that his supply will hardly meet the demand at yesterday's price, but there may also be plenty of goods of the same quality on the street or in storage which he can get if he needs them. But he tries his luck at a higher figure. Within a few minutes someone else hears of it and is determined not to be outdone. Within less than half an hour the news has run through the whole district that some houses are getting more for this fruit than yesterday, and every dealer is trying to follow suit. What has happened? A man with the qualities of leadership has taken advantage of the psychological situation produced by a fairly rapid flow of goods into consumption to raise the price.

There must always be a first man to make a sale at an advance over yesterday's price. We cannot assume otherwise without charging that there is a conspiracy in restraint of trade. The conflicting interests of operators in the same market render this unlikely, especially with the more highly perishable goods. In an auction the buyer bids for the goods. Every price named is named by a would-be-buyer. On the street the situation is reversed. The seller sets the price, sometimes subject to reduction by bargaining, but likely to be held to until it is found necessary to reduce it to move the goods.

It sometimes happens that the price holds up well in the face of steadily increasing receipts of some one product. For an explanation we may be told that, "the bulk of the

stuff has been in strong hands and the little fellows have not been overloaded, so they have held to the price."

A little later there may be a rapid decline. The explanation may be about like this: "A lot of the little fellows got to speculating and brought in more than they had outlets for. They got panicky and cut prices till the big fellows had to come down." Or, "Some of the houses went out strong after consignments and got more stuff than they could handle. They didn't have anything invested in the stuff, so they let it go and broke the market."

These explanations of what has happened show that the actual price level for any given day on any single perishable may be determined by any one of many psychological situations. Prices may be held up all along the line because strong men dominate and feel sure that the goods can be moved into consumption at their price. Again prices may be smashed by a group of weaker traders who find or fancy themselves overloaded and lose confidence in the whole situation.

THE PSYCHOLOGY OF SPECULATION

Large quantities of certain fruits and vegetables are purchased for future delivery. This trading is not done on an exchange nor by sales and resales on margins. It consists of thousands of separate contracts each of which contemplates the actual delivery of the goods specified. There may be the utmost variety of form and detail, of terms of payment, rate or date of delivery, and division of risks, but they all have one effect in common upon the minds of the buyers. Every man who has bought goods for future delivery is interested in keeping up the price.

If the dealer has paid cash for apples or potatoes and has stored them for future sale, he has an even livelier interest in maintaining prices. If a majority of the larger dealers in any perishable which can be stored have bought for more than their immediate needs, the market will be well supported. Every man in the group has not only his

money at stake, but his pride of opinion, his supposed business acumen, his reputation as a judge of the market situation all hang in the balance. This group must not and will not take a loss on those goods until forced to lower their prices by the demonstrated impossibility of moving the goods at an advance over their cost.

To this end they may submit to a relatively slow movement during the early part of the marketing period. They may say that they are letting the early stuff get out of the way. They will proclaim their faith in the better prices that are coming. Other dealers will try to hold to the prices they are asking. Their confidence tends to maintain the price level.

Their conscious or unconscious object is to influence the mind of the public to accept their view so that normal consumption shall proceed at their price. They do not want retailers or consumers to get the idea that lower prices are coming and curtail purchases in anticipation of a decline.

What actually happens in such a case is that these dealers or speculators have made up their minds that this particular crop of apples or potatoes or onions or cabbage ought to move into consumption at about a certain basic price per hundredweight or per package. They have measured the size of the crop and the probable buying power of the public. They have balanced supply against probable demand as well as they know how. They have risked their money on their judgment. Now it is their job to guide the minds of everybody else to the same conclusion.

If the retailer tells the consumer that the wholesale price is very steady and there seems to be every prospect that this is about the price which will prevail all winter, the consumer's mind is at ease and he buys what he wants unless the price is so high as to start him on the search for a substitute. The consumer develops an effective resistance when his ire is aroused, but within reasonable limits he lets the middlemen decide for him what price he should pay. The dealers who are holding the bulk of any crop must be able

to satisfy the consumer that there is no particular reason why he should not buy freely at prevailing prices.

When there has been a general willingness among dealers to invest in a product on a basis which will permit the goods to reach the consumer at a price not unusually high, the stage is set, psychologically, for the maintenance of such a price even though the total quantity proves to be so large that it takes the most active salesmanship to push it into consumption.

THE PSYCHOLOGY OF THE PANIC

When unexpected sales resistance is found, when supplies prove much larger than anticipated, when a product shows a generally heavy shrinkage in storage, or when banks become unwilling to renew or extend loans, dealers are likely to conclude that they must speed the movement of stocks. If a large number of dealers reach this conclusion at nearly the same time, as is likely to be the case, the buyers find the goods offered on every hand at cut prices.

If a buyer found some one dealer who would sell at a reduced price, he might be tempted to anticipate his own needs as far as his facilities would permit in order to take full advantage of the opportunity. But when he sees a general cut in prices in a market where he and other buyers have been supplying their needs without question, his tendency is to buy in even smaller quantities if possible. He wants to see where the price is going and he does not want a further decline to catch him with anything more than a day's supply on hand.

If the first price reduction does not result in noticeably faster sales, the holders of large stocks are likely to follow quickly with a further cut. The further the price is cut, the more carefully the buyers avoid overbuying. To buy more than their current needs would mean sharing with the dealers the danger of a further decline.

The buyers are either jobbers or retailers and may be

depended upon to pass the goods along to the consumers as rapidly as possible under such conditions. They will be slow, however, to give the consumer the benefit of the decline in wholesale price. The result is a relatively wide margin of profit for the retailer, which he naturally wishes to retain as long as possible. Thus the consumer is not promptly reached or influenced by the wholesaler's desire to unload.

The psychology of the whole situation is easily traced. For a time everyone loses sight of the assured volume of demand as it will develop through the season. The wholesalers have but one method of liquidation. They must reduce the price until consumption is stimulated. This may mean a veritable slaughter of wholesale values bringing disaster to every producer who is holding any of this particular product as well as to dealers who have invested heavily in it. With the crumbling of wholesale values banks demand additional security, thus adding to the difficulty.

In the case of a nonperishable product a panic of this sort may be checked when prices drop so low that a new group of speculators is willing to buy at the price level of the moment. In the fruit and vegetable industry this is not likely to happen. No outside group has the means of distribution. The surplus cannot be exported or held over. If bought by a new group of speculators it must be sold again through the same marketing agencies and returned to the same channels from which it was withdrawn.

What, then, is the influence which finally breaks up the fatal psychology of the situation just described in the marketing of a perishable?

There are two which are important. The cash-and-carry grocery gives the consumer the benefit of declines in wholesale prices more promptly than did the grocer of a few years ago. These stores do tend more and more to stimulate the consumption of any semistaple fruit or vegetable by displaying the goods at prices based on wholesale costs. Many of these chain stores are intelligent advertisers

through the newspapers of any fruit or vegetable which they can sell at unusually attractive prices.

Second, we have in almost every city a large group of street venders, pushcart men, hucksters, and now auto-truck drivers who are itinerant merchants, taking goods from the city markets into surrounding towns, villages, and even to individual suburban residences and farm houses. These itinerants are largely bargain hunters. They are looking for something which can be turned quickly at an advance. Anything on which the wholesale price has slumped attracts them. They will buy the goods which are going at panic prices and pass them on to the consumer at prices far below those of the retail grocer. Eventually they force him to come somewhere near meeting their prices. These itinerant traders are cash buyers and get their supplies at prices surprisingly close to those paid by retailers who appear to do a much larger business.

A new psychology is brought into the situation by these itinerants. Their interest is in exploiting the consumer's willingness to respond to an attractive price reduction. They bring an intense form of salesmanship to bear on the consuming public which they reach. They display their goods with an efficiency which few other dealers can approach. If the price stimulates purchases by consumers, they will specialize in these particular goods as long as this state of affairs continues. In more than one local glut they have been the little leaven which has leavened the whole lump, finally bringing all retail prices into line with wholesale values and stabilizing the wholesale market through a demand which they have created.

When the movement of goods out of wholesale stocks is thus quickened, without extending even the usual amount of credit, the confidence of the holders and of their bankers is gradually restored. Prices then tend to settle around the point at which a rate of consumption can be maintained which will use up the crop within its normal season. In the meantime the market has passed through a period in which

values were determined almost wholly by artificial and psychological conditions. During this period the prices were far below those at which the consuming public would have taken the goods had they come forward under normal conditions. A far smaller reduction in price than actually occurred would have made them appear desirable and economical purchases. A needless sacrifice has been made.

THE PSYCHOLOGY OF DEFEAT

In 1924 it was the general testimony that few of the dealers who operate on a large scale in one producing district after another had made any money. Crop after crop had sold at disappointing prices on the markets. They approached the autumn with depleted resources and apprehensive minds.

The potato crop was large. Prices on late stock opened low. But no price was attractive to the dealers who had begun the season with a disappointment in Texas onions, then in the Imperial Valley cantaloupe crop, and had lost on early potatoes, peaches, and other crops in turn. There was a general disposition to let the growers hold the crop, to buy only as resales were negotiated and to handle largely for growers' account.

Such a situation makes a buyer's market. No one can develop much salesmanship. The fact that the big operators are not buying discourages the small dealer from taking on a large stock even at low prices. With everyone buying from hand to mouth, more stock remains in the grower's hands until in despair he will sell for anything above the cost of sacks and delivery to the carrier.

There is little evidence that many more potatoes were eaten during the winter of 1924-25 than would have been eaten had the price been 20% or 30% higher. Even then potatoes would have been relatively cheap. With the great buying power of labor during that period, everyone would have eaten all the potatoes he wanted at the higher price.

The psychology of discouragement among the large dealers effectually prevented anyone from holding the price at the highest point at which demand was fully developed. Without any perceptible increase in consumption the price went on down to about the lowest point at which the growers could afford to load, assuming that the potatoes were free goods in the cellar and ignoring all costs of production.

The same conditions militated against the efficient marketing of the fall onion crop, although there was no such apparent surplus as in the case of potatoes. Nobody was willing to invest heavily and hold the stock. With dealers buying only to fill orders, growers lost all confidence in the goods. Thus the onion crop went into consumption at a level established not by what the consumer would pay but by the general reluctance of everyone from grower to retailer to have any capital invested in stored stock.

The apple movement suffered from the same influences, though perhaps not so severely. The market dragged and sales were made at low prices because of the general unwillingness to invest in storage stocks. To the disinterested observer the market seemed inexplicably bad. With a crop which was far short of a full production for the whole country, the prices were anything but reassuring to the owners of young orchards.

The whole situation illustrated the impossibility, under present conditions, of moving even normal crops of perishables successfully when the larger dealers are discouraged by repeated losses and have grown blue and apprehensive.

We have cited the actual experience of a recent season to illustrate the point under discussion. Many other illustrations and proofs will occur to anyone who has been in close contact with the industry through a series of years. When the losses have exceeded the gains for about so long, dealers find themselves in a frame of mind where no bargain looks good. They distrust their own judgment and refuse to carry the ordinary risks of large-scale merchan-

dising. The price levels of enormous crops, which are valued at hundreds of millions of dollars and which are shipped from coast to coast, are often profoundly affected by this psychology of defeat.

THE PSYCHOLOGY OF LOW PRICES

It sometimes happens that the general price level is so low that it seems to act as a deterrent rather than as a stimulant to trade. There have been recent instances in which the wholesale trade has lost interest in certain perishables for no other apparent reason than their abundant supply and low price.

When the quantity available and in prospect in the principal producing regions is so large that f.o.b. prices are barely above the costs of harvesting and packing, and seem bound to remain at about that level through the crop season, the carload trade buys as little as possible. Margins are bound to be narrow. The market is bound to be flooded. There can be no adequate reward for good salesmanship because everyone knows of the oversupply. No enthusiasm can be aroused over a cheap product when there is no chance to advance the price. Thus reasons the large operator.

Of course, he handles the goods, perhaps in large volume, but he is attempting no more than to supply the demand which comes to him with no effort on his part. He is pushing some other "line." His salesman can make him more money by placing one car of some vegetable which is scarce and high than by selling two or three cars of the cheap product. Thus the growers of these cheap goods are deprived of the benefit of even normal sales effort in the larger markets.

Even consignment on commission brings the grower no better returns under such conditions. The commission merchant cannot force up the price in the face of the low price set by the carload buyer. He gets so little for his time and

labor, from his commission at the prevailing price level, that his only salvation is in quick sales made at the least expense. So he joins in the slaughter. If lettuce is the product, as it has sometimes been, he has good lettuce at low prices for all his customers. If the freight, commissions, and other charges consume all the proceeds of the sale, no one can blame him, everybody knows the condition of the lettuce market.

In short the psychology of the situation precludes obtaining as much as the consumer would willingly pay for as much of the crop as actually comes to the market. Everybody thinks there is too much and it is too cheap to justify any sales effort.

PSYCHOLOGY OF THE CONSUMER

The consumer is the last buyer and in the last analysis he can make or break all the others. It is probably fortunate that no one fruit or vegetable is an absolute necessity. Even the potato can be dispensed with for a whole season if necessary.

Fortunately the American consumer has been able, in recent years, to eat about what he has chosen to eat. His standard of living is higher now than ever before. He has been able to devote his energy to finding what he wants rather than to haggling over prices. He does not expect today's price to be governed by the visible supply. There is more food offered in our markets each day than can possibly be sold to consumers on that day. The dealer seldom says, "This is the last I have and I do not know where I can get any more."

When the consumer has found a grade or brand of any product which suits him, he likes to have his repeated orders filled at a stable price. As long as the product suits him, the price remains virtually unchanged, and his pay check arrives regularly, his mind is at ease, and the dealer finds him a good customer. In fact, it is this phase of the con-

sumer's psychology which prompts the retailer to maintain his price in the face of falling wholesale prices.

The American Cranberry Exchange takes full advantage of this knowledge of the thought and habit of the consumer. The cranberry crop, though gradually increasing, is not growing by leaps and bounds. It is the constant effort of the exchange to start each crop into consumption at a price which can be maintained with little fluctuation through the season.

But the consumer is human and resents anything which he construes as imposition. If a price strikes him as unreasonable, especially in case of a stored product, he is ready to go on a strike or declare a boycott against the goods. Such a movement is seldom organized and is never universal. Consumers' resistance has, however, spoiled many a promising speculation.

Anything which disturbs the consumer's mind, which starts him on a critical comparison of prices, of one product with another, or of this year with others, is potentially "bad" for business. We have seen that hucksters and other street venders perform exactly this service. They waken the consumer to a realization that some good thing is unusually cheap. This new knowledge prompts him to ask his regular retailer a few questions which tend to bring his charges into line with wholesale prices.

The sense of having made a good bargain is gratifying to any of us. As consumers we are all ready to appropriate our share of desirable goods which are obtainable at lower prices than we have formerly paid. Applying this principle to fruits and vegetables we may safely say that the more distinctly the product falls into the luxury class the more quickly and widely can its sale be stimulated by a marked price reduction. Notwithstanding our high standard of living, there is an element of thrift, prudence, and self-restraint in a majority of American homes which we are prone to ignore. In most families there is a latent demand for any one of a number of luxuries or semiluxuries which

will be gratified whenever a marked price decline appears to take the product temporarily out of the luxury class.

This brief analysis of consumer psychology leads to the conclusion that, as consumers, we should pay more attention to wholesale prices and insist on buying more nearly on the basis of replacement costs. We should not be quite so contented with stable prices nor should we be content to know what one class only of retailers is asking for fresh fruits and vegetables.

But since most consumers are more concerned just now with the prices of automobiles, radio sets, and gasoline than with the prices of their foodstuffs, the producer and dealer find it to their interest to keep prices as uniform as possible and at as high a level as can be maintained without exciting the consumer's ire. The consumer's psychology as they see it suggests to them a program which can be stated in few words. Keep him contented and he will eat and grow fat. Keep him eating and growing fat and it is easy to keep him contented—even under a little imposition.

XXI

PSYCHOLOGICAL INFLUENCE ON PRICE LEVELS

Supply and demand basic but not conclusive. The influence of opinion. Uncertainty of flow. Opinion and price. Undetermined facts. Futures. Discounting the future. Opinion and demand. Anticipating needs. The dealer's guess. The consumer's conclusion. Influence of first dealer group. Its basic interest. Its composition. Opinion passed to consumer. Retailer's position. Grower's position. How the dealers' price is made. Not by agreement. Advance sales or purchases. Divergent opinions. Leadership. Disinterestedness. Judgment. A possible governmental service. Present services a background. Officially recommended price levels.

THE most important influence in determining the temperature of a locality is its distance from the equator or the poles. It does not follow that all regions in the same latitude have the same temperature. Still less do they all have the same climate. Elevation, proximity to lakes or sea, direction of prevailing winds, protection by mountains, even the direction of ocean currents hundreds of miles away, any or all of them have their influence on the climate of any specific locality.

In the marketing of fruits and vegetables the supply and the demand are the basic determinants of prices, and the price, to the grower at least, is the most important item in the whole marketing situation. But just as temperature and climate are modified and sometime dominated by the influences just named, so the general condition of the market and the prices actually prevailing at any particular time, or even for a whole season, for any particular product are influenced or controlled by a host of forces other than actual supply or present or measurable demand. It is impossible to understand many things that happen in a market or why they happen, unless these forces are taken into account.

Some of the psychological forces which influence the movement and prices of perishables under specific conditions were discussed in the last chapter. We come now to the consideration of other forces, some of them intangible, some important because of their influence on the minds of some group or class, some perhaps as purely psychological as those already discussed.

THE INFLUENCE OF OPINION

Human action is based largely on belief and expectation. We constantly discount the present in favor of the future. Every intelligent business man acts today in the light of what he expects will happen tomorrow or in the more remote future. The situation at the moment is only one factor in his calculation.

Since our supply of perishables has become a flow, dependent largely on the weather and other influences beyond our control, and from a source seldom completely exhausted, rather than a fixed and measured amount, there is necessarily much guesswork as to the rate of flow of any particular product at any future date and as to the quantity which will flow within a given time. The uncertainty on these points is more pronounced with perishables than with staples. Yet prices, in the autumn of each year, on all the fruits and vegetables which are stored for winter use are based largely on the opinions of traders as to what the supply will prove to be.

The willingness of some dealers to invest heavily in a stored perishable will depend upon their opinions as to its keeping quality.

The readiness of the banks to finance large early purchases depends on the bankers' viewpoints as to probable future demand and price.

Opinions as to probable conditions of employment and the general prosperity of industry have their influence.

Opinions as to the financial ability of growers to hold

consistently for prices then being asked, and to market gradually and only as those prices can be obtained, will determine the course of some dealers. If they think the producers can and will hold for the prices then asked, they may conclude to buy freely at those prices. They count on the growers for future support and join the effort to market the crop on the price level then prevailing. If they believe that the price is too high and that growers will soon be compelled to take less, they become bears and all their influence is exerted to bring down the price.

The price actually prevailing has been reached by a balancing of opinions on these and many other factors in the situation. The opinions of the moment make the prices of the moment. As the opinions of traders change, prices will change. Under present conditions it is impossible that all the facts be known concerning any considerable product at harvest time. In only a few cases can all the facts as to future supply be known at any time during the crop season. After midwinter relatively few apples remain out of cold storage, and the cold storage holdings are reported monthly and with a close approximation to accuracy. Even then there is no certain knowledge as to the proportions of various varieties in the total supply nor as to the proportions of different grades.

Late in the season most of the remaining onions are in cold storage and the quantity can be closely estimated, but by that time the new crop from Texas is only a few weeks off, so that the element of uncertainty and opinion as to what competition the remaining old stocks must face is still important.

None of the other fresh fruits or vegetables stored for winter go wholly into commercial storages and therefore they remain permanently within the realm of estimate and forecast. As the season for each progresses, opinions may change and prices will change with opinions.

The exchanges on which future trading is carried on, especially in cotton and grain, furnish probably the most

striking example of prices based on opinions and fluctuating with every fact and circumstance which tends to change the opinions of the traders. The same cotton trader may be a buyer at 10 o'clock, a seller at 10:30, and a buyer again at 11; or he may make a dozen purchases a day each at an advance over or at a decline from the preceding price. Prices paid for the same grade of cotton or wheat may go both up and down in the same day and after many such fluctuations may be practically the same at the end of the week as at the beginning.

Meantime, especially as to cotton, the supply, both in sight and potential, may have remained wholly unchanged. The annual world demand is also fairly well known, although subject of course to variations due to many possible influences. Concerning these possibilities opinions swing back and forth, swayed by the news of the hour, and prices move with these opinions. The opinion is a thing of the moment and so is the price. There are no other markets in the world so sensitive as these future markets, and the public complaint against them is that they do not reflect a bona fide balancing of supply and demand but that they are too responsive to all sorts of psychological influences. They are subject to scares and stampedes and to the intoxication of wild speculation.

But through all the transactions on the future exchanges there runs one dominant influence around which all opinions are molded, the influence of a future more or less distant which every trader is trying to anticipate and to discount.

DISCOUNTING THE FUTURE

Some fruits and vegetables, like strawberries and sweet corn, are so highly perishable that purchases of the actual products, either at wholesale or retail, are made almost wholly for immediate resale or use. The needs of the future cannot be anticipated by more than a very few days at the most.

This is not true of a large group of fresh products which are stored for winter use or carried for a period of weeks or months in cold storage. We have just considered the importance of opinion in fixing the general price levels of these goods and have emphasized opinions on supply.

Our demand for many things is not determined by present need so much as by what we expect to need and the difficulty we anticipate in supplying those needs. This is especially true of one who buys goods for resale.

Scarcity in these days reacts upon our minds long before it actually affects our stomachs. Facing the fear of hunger any man will do his utmost to forestall the fact. His best energy will be spent while hunger is still in prospect. If his efforts fail and the day comes when he finds that his stomach must go empty, he is likely to sink into inactivity and despair.

The dealer whose business in the less perishable fruits and vegetables amounts to any considerable volume, must always operate with future needs in mind. He must buy and store, contract for future deliveries, or take his chances on the rise and fall of prices on the holdings of still larger operators. Sometimes he may count on farmers' stocks not yet in sight. These will come on the market, however, at substantially the same prices as those asked by the larger holders.

Whether he be a wholesaler supplying retailers, directly or through jobbers, or a large retailer, he faces the problem of supplying a certain trade which has been built up. If the quantity of any crop appears to be less than the public will consume at current prices, the price will rise as soon as that fact is realized by the trade.

Speculation by outsiders may occur later, but for a time there is likely to be a rapid rise in prices while legitimate dealers scramble for stocks which they expect to need to supply the trade which will come to them during the season almost regardless of price. This rise in wholesale price is in response to a dealer-demand which is actual and present,

but this dealer-demand is based almost wholly upon anticipations of the future. As yet the consumer has felt no scarcity. He has not noticed that supplies were short and offered to pay a higher price. Neither has the dealer as yet had any difficulty in securing current needs from current offerings. But the future looms dark with a suggestion of probable shortage, a time when it may be necessary to say, "we are out of potatoes" or when a price must be asked which will curtail consumption.

At this point the dealer makes his most vital forecast. He forecasts as to what the consumer will pay per pound or bushel before making a conscious effort to substitute some other product for the one in question or before seriously curtailing consumption. Dealers, consciously or unconsciously, want to keep the price from going above that point. They do not want a consumer's strike. They want him educated to the necessity of the high price and hope that he will buy almost as freely as usual, for there is seldom a shortage in fruits or vegetables which necessitates serious sacrifices by consumers.

In the excitement of rising prices the elements of speculation and rivalry always have an influence. Often, perhaps usually, when a shortage is clearly in prospect, wholesale prices are advanced to a point at which the goods go into consumption too slowly. Then we have a slow or stagnant market, followed by a reaction and a sag in wholesale quotations.

In such situations the losers are those dealers who have forgotten the veto power of the consumer and have allowed themselves to be carried too far by the optimism and rivalry in the wholesale trade. They have sensed the desire of all dealers to control fairly large supplies. They have forgotten that the enthusiasm of that competition cannot be injected into the last group of buyers.

From all this it follows that "coming events cast their shadows before," as truly in fruit and vegetable marketing as in other phases of human activity. The nature of these

products makes the shadow of the future less well defined than it is in many other industries, but this shadow is one of the important influences in making the price of today.

INFLUENCE OF THE FIRST DEALER GROUP

The evolution of the processes for distributing fresh fruits and vegetables is now at a stage in which one group wields a major influence in establishing prices. Fortunately this group is not primarily interested in a high price level or a low price level. They buy for resale or handle on commission. They want to maintain a steady flow of goods. They would prefer to have prices always high enough to encourage production and production large enough to keep the trade under a little pressure to find outlets for all of it. They do not want prices lower than are necessary to develop a full normal demand. By this we mean the demand which will develop when every dealer in the goods has an abundant supply on constant display at a price which does not force them into the luxury class nor lower them to the class of street venders' specialties.

This group comprises the shippers who operate on a large scale as distributors from producing districts, practically all buyers who receive car lots in terminal markets, and the commission merchants. We might add the managers of some of the best growers' selling organizations. In short, this group is made up of the men who first put their money into the goods after they leave the growers' control, and they carry with them the more important growers' agents, the large commission men, most of whom are also buyers, and the association managers, who have nothing invested in the goods, except their jobs.

A number of the influences which may sway their minds in deciding what the price should be on any crop just coming on the market have been suggested in this and the preceding chapter. Yet other influences will have occurred to the reader. We have emphasized those which are potent

in the formation of opinions or in prompting action without well-grounded opinion.

These influences, largely psychological, are of supreme importance because it is the men in this group who tell the producer what he ought to have for this crop and who pass the same word on through the jobber and retailer to the consumer, each telling the next what he ought to pay. And, as we have seen, the consumer usually pays the price suggested. Consumers are numerous and unorganized and very few of them make food-buying their chief business. Those who do are usually reselling through the kitchen of the boarding house, lunch room, or hotel and seldom pay the prices which are asked housekeepers. Since the purchases of necessary food and raiment are now incidental in the lives of average Americans, they do not demand major attention. It is this prevalent condition of prosperity which just now gives salesmanship its golden opportunity among us. We are "easy to sell," and the good salesman reaps a large reward.

So, if the consumer accepts the price handed down to him, as he usually does, the crop moves along with only minor price fluctuations. The dealers set the opening price and if nothing happens to show that their judgment is in error, the farmers' return and the consumers' expenditure are determined by the price thus set.

The jobber has no vital interest in the price he pays if he can move the goods promptly in usual volume at a normal margin. The retailer is in nearly the same position. He is in business to make resales at a profitable advance over cost. High-priced goods involve a larger current investment of capital, but in the sale of the products which we are studying the turnover is rapid and the retailer's current investment is relatively small. His interest then is in a quick turnover at a satisfactory advance. If this is accomplished and the consumer does not complain, the retailer is not likely to resist the wholesaler's or jobber's price.

The grower is more likely to have opinions as to what the price should be than is the consumer. Organization

among the growers gives added force to these opinions. Ability to store and finance the crop, if a long-season product, lends further force to the views of organized growers. A well-managed sales department is a third important makeweight in their favor.

But the dealers can always find growers or shippers who want cash at harvest. In fact, these growers are actively looking for a market and will consign if they cannot sell, or they may consign if prices offered seem too low. There are always houses soliciting consignments and the prices at which they sell in the larger markets are broadcast to the world daily. The consigned goods are sold next door to purchased goods offered for resale. The latter, being in the hands of owners, are held tenaciously at a price which yields a profit. The commission merchant will hold his shipper's goods at the same price if the market at all justifies it.

In the producing district the returns from consignments, the cash sales made to shippers, and the f.o.b. sales negotiated, establish a price, whether satisfactory to most of the growers or not. Bankers decide in the light of this price how much to advance on the goods in storage.

If growers throughout a particular crop area, as in all the late onion districts, are generally disposed to hold, they can soon force the price above the level thus set, provided the price offered by the dealers is actually less than it need be to develop normal consumption. But if the dealers' price is right; if an increase means a cut in consumers' purchases, with a rate of movement which will not absorb the crop within its season: then no holding movement by the growers can succeed. Any gains in f.o.b. prices will be short-lived and followed by a reaction likely to leave the price lower than before the advance.

So it is the dealer group, usually the first buyers of the goods, that sets the price at which the consumer is tried out. It may be a low price, calculated to stimulate the largest possible use and giving the grower but a small fraction of

his cost of production, but if the dealers generally have arrived at the opinion that the growers must eventually let the product go at that price, because of excessive production or for any other reason, the growers usually find themselves helpless.

Growers, broadly speaking, must accept the buyers' offers or convince the banks that their crops should be financed on the basis of a price not being paid and which exists only in the realm of the growers' hopes. This is no easy task. The grower must give other and abundant security, so that he is in effect obligating his free property that he may hold his perishable crop for a price which no one is then paying and which it is evident the buyers do not expect to be obliged to pay.

HOW THE DEALERS' PRICE IS MADE

The inference might be drawn from what has been said that the opening price on any long-season perishable is reached by conference and definite agreement. There is no good ground for such an opinion, and the writer does not believe that anything of the kind happens. If so, it must be in rare instances and for temporary and local ends.

The dealers' price is based on opinion openly and honestly arrived at. Some, betting early in the season and before the crop is ready to move that they know about what the price will be, make advance purchases on their individual judgment. These sales for future delivery are usually noised abroad in the district where the crop is growing. Correspondents of the trade papers report that advance sales are being made at such and such prices.

Other dealers and other growers figure diligently on how the crop must move to give the buyer a profit and on how the grower is coming out at the price he has accepted. If other dealers think the pace-setter is safe they may begin sounding out other growers with similar proposals. If growers think they can see a satisfactory return on their

own crops at the price reported, they offer to sell on similar terms.

Like transactions in competing territory are closely watched no matter how distant. The progress of the crop is reported by the Department of Agriculture and by the trade papers. The prices of competitive crops are watched. The movement and prices of the product from earlier regions are studied. Practically every factor in the situation which can be known is known to most of the leading dealers in the crop. It remains for the buyer to use his best judgment in deciding what the price will be. Not what he wants it to be, for as yet he has nothing at stake, but what he thinks it must eventually be in the light of all the facts as to supply, all history and experience as to consumer demand, and in view of all the psychological influences in evidence at the moment or likely to develop later on. The average dealer does not call them psychological influences, but he recognizes their force and the successful man reckons with them as carefully as with the more tangible factors in his problem.

Unanimity of opinion among dealers early in the season of any crop, or in advance of its season, is by no means the rule. Almost every year bankruptcies occur because some firms have gone in too heavily on some product at too high a price. Again and again traders will comment on the future contracts of others, congratulating themselves that it is not their money which is at stake on those terms.

The degree of common opinion which is reached results not from secret conferences and agreements but from the universality of the knowledge on which it is based. To this must, of course, be added the power and influence of leadership, for here as elsewhere the prudent newcomer in the field watches the older operator, and the men of small means tend to follow the lead of the successful. It is probably fortunate for all concerned that this is so. Those who have grown rich as buyers have succeeded because they read aright the signs of the times. They have sometimes bought

freely when the crowd held back, but when they were right and the crowd was wrong. Again they may have avoided losses by refusing to buy when a wave of speculation has swept others off their feet.

These men approach the question of price on any crop with a good deal of detachment. Until they have invested they have no interest in an advance in prices. Very high prices limit the volume of business and increase risks. Very low prices mean that they must buy all the season from a disappointed, unhappy, fault-finding grower-group who are losing money and think that the dealer should do likewise. If they handle for the grower's account, he is no better pleased. In fact, he is then more likely than ever to think himself robbed.

So the group of dealers who do more than anyone else to determine what prices shall be are perhaps the best qualified and most disinterested group which could possibly be selected for the purpose. If the farmers have produced too much, it is the dealers' fault only to the extent that they may have financed a part of the production and if so their money is at stake as well as the growers' and the interests of both are identical.

Once a general price level is established, every dealer will buy below it if he can. He will also snatch a premium over current prices from any customer from whom it can be wrung by legitimate good salesmanship. He will also, of course, make advance purchases as low as he can. If he makes them too low, competition will soon block the game if other dealers agree with his judgment as to future prices. But when the crop is just coming on the market and he must buy for resale in the near future as well as for storage if he wishes to speculate, his offers will be based on his best judgment as to what is bound to happen in spite of anything he can do. He does not arbitrarily fix a price. He makes offers based on what he thinks the price will be in the very near future, or, if he is buying for a season's supply, on what he believes the average price will be.

In spite of the general agreement of judgment finally reached by the buying group there is probably no industry in the country more free from any taint of nation-wide or trade-wide understanding.

A POSSIBLE GOVERNMENTAL SERVICE

Official estimates of production have a profound and apparently growing influence in determining price levels. Year by year conservative traders seem inclined to rely more confidently on Government forecasts of the production of every crop for which estimates are made. Right or wrong, these forecasts are known to be disinterested, and dealers' minds are inspired with a certain confidence which nothing else seems to give.

The Government is the only source of comprehensive current information on perishable crop movement.

Governmental market quotations, although they do not pretend to be an accurate average of all sales, are accepted as the basis for the settlement of railway claims, and their fairness as reflectors of current prices is gladly admitted.

The trade now refers to Government inspectors many times as many disputes over the quality and condition of specific shipments as it ever referred to all its own agencies combined. The results are challenged, literally, only once in about 600 times and reversed only about once in 2,000 times.

Recently the trade has shown a disposition to court the aid of Government in the improvement of its own internal relationships and in the formulation of advancing codes of trade ethics.

Back of all this is a growing confidence that the workers in the governmental services which affect this industry are relatively free from the influences which often lead the active trader to wrong conclusions.

Up to this time the Government has consistently re-

frained from injecting the element of prophecy into its crop marketing services. Crop estimates are an institution of long standing, but all specific price predictions have been taboo.

But since the prices actually paid the grower for perishables are governed so largely by the opinion and attitude of the wholesale trade, and since the consumer seems to take a normal supply at almost any price level which is not materially higher than he has become accustomed to paying, it may fairly be asked whether the Government could not now render a further and exceedingly valuable service by actually suggesting and recommending an opening price or a basic price level for each major perishable in turn.

Such a recommendation would have a psychological effect only, but we have seen that psychological influences are powerful and determine in large measure what happens in the marketing of perishables. A definite expression of opinion by the United States Department of Agriculture just before the opening of the crop season for any perishable in a district which is of importance in the national supply, that in view of the estimated production, the quality of the crop, the condition of the market, the supplies of similar or competing products and the buying power of the public, the crop should move into consumption at a minimum return of so much per unit at the loading point, might serve a most useful purpose.

It seems not too much to hope that the most influential traders, who now use the disinterested services of Government so freely, would consciously try to hold the price at or above the suggested minimum. Even if the voices raised in protest and derision were more numerous than those heard in approval, the market could hardly escape the psychological effect of the dispassionate statement of official opinion, based upon all known conditions and presented with all the known facts in its support.

XXII

THE PROBLEM OF DISTRIBUTION

Of recent origin. Rapid evolution. Market gluts and famines. Gluts without famines. False doctrines. Land values involved. Why all market demands are net. Rollers unsold. Diversions. Blind consignments are of the past. Where shall a surplus go? Penalty for bad distribution. Safeguard the auction. Lure of large markets. Don't break them. Demand of the smaller markets. A place for the surplus. Breaking the large market. Effects on smaller towns. Coordinated effort needed. Is there danger of monopoly?

THIS problem has had an evolution all its own. It was scarcely existent a generation ago when no producer of fruits and vegetables had any choice of markets. It did not emerge as a problem immediately after the epoch-marking invention of economical ice manufacture, but in common with nearly all the economic problems of the industry it traces its origin to that discovery. There was no problem of distribution as long as the markets were reaching out for supplies, but with the opening up of the whole country as a possible market garden for its cities the whole situation was bound to change. It was inevitable that production would finally become speculative and that producers would seek markets as the markets had formerly sought supplies.

Measured in terms of the lives of men and of the duration of important economic readjustments, this evolution has been exceedingly rapid. Today the marketing specialist is likely to refer to the proper apportioning of perishable goods to the various consuming centers as the outstanding problem of the hour. Many still think in terms of gluts and famines which were in fact familiar phenomena until within the last 10 years. Now they are relatively rare. Nevertheless, there are exceedingly important problems of distribution.

MARKET GLUTS AND FAMINES

By these terms we mean a needlessly large accumulation of a specific fruit or vegetable with disastrous prices in one market or in a group of markets, while at the same time other equally accessible markets are undersupplied with the same product and are paying an abnormally high price for it. Such a condition is the result of bad distribution. It could be chronic only in an era of unorganized and promiscuous consigning of goods on commission. The industry has passed through such an era, but happily it is now of the past and probably cannot recur.

We do have frequent and disastrous periods of oversupply and general price depression. Markets for certain products may be demoralized. Part of the crop may not pay shipping costs. "Red ink" takes the place of the check when an account of sales is rendered. Such a condition cannot be charged to unscientific distribution unless we can find the markets which could and should have had larger supplies. There are gluts without famines, although we have fallen into the habit of linking the two words together. Certainly no one will contend that a famine necessarily implies a plethora elsewhere.

There is much misleading discussion of the marketing situation and perhaps none of it more misleading than that which insists that illogical distribution, gluts, and famines are the causes of depression in the industry. If the men who are chiefly engaged in the production of fruit and vegetables for market or in their actual sale and distribution were the only ones given space in the press for the discussion of marketing problems we should hear less of this sort of error.

The difficulty lies in the fact that many who are most vocal on this subject are far more interested in land values than in a living margin of price over cost of production. The grower who intends to stay in the business and whose farm is not for sale can afford to say frankly that too many

trees or acres have been planted and that his business is overdone. He expects to survive by being more efficient than the marginal producer. But the promoter, the developer, the colonizer, the realtor, sometimes even the banker, and always the local politician feels impelled to denounce all such "false doctrine." It is heresy against the established faith of every booming region which has seen land rise rapidly in value as its fruits or vegetables won favor in the eastern markets.

Some of the basic doctrines of this established faith are: "The World is crying out for that which we produce." "There is no such thing as overproduction." "There is only underconsumption." Such is the familiar dictum of the man who would cure all economic ills from the hustings and who is interested above everything else in preserving the fiction that the market for specialties and luxuries is unlimited and that therefore all the land in which he is interested is worth a fabulous price.

These are the only people directly interested in the problem who still talk of gluts and famines as causes of the depression of the industry. They preach the doctrine of "wider distribution" as the cure for whatever ills they may choose to admit afflict the grower. Unfortunately we still hear discussions of gluts and famines by a few educators and economists who have been too closely engaged on other problems to keep pace with what has transpired in this industry in recent years.

WHY ALL MARKET DEMANDS ARE MET

Broadly speaking we have no market famines when there are available supplies anywhere within reach. This is because there are always cars rolling unsold and in every city brokers are trying to sell them. Any dealer who wants a car of any fruit or vegetable which is in normal supply can get one diverted to him on an hour's notice by placing an order with a broker over the telephone. In the case of

any product moving in quantity from the Pacific or Gulf coasts a dealer east of the Mississippi and north of the Ohio River can usually buy a rolling car for delivery within 48 hours. It is hard to conceive of dealers allowing their markets to suffer "famines" under such conditions.

National distributors of every kind expect to have unsold rollers within reach of almost every market between point of origin and New York or Chicago. These can be diverted in almost any direction which does not involve a back haul. Until the tidewater cities on the Atlantic are reached, the car may be sent to any of a large number of destinations on the original through rate.

Meantime anyone who listens in on the radio can have market reports daily or oftener. Every car lot dealer in the usual course of his business knows what is going on in nearby cities. He knows also the volume of daily shipments from the surplus areas. If the town contains more than one wholesale dealer there is some competition, and each is keen to underbuy the other. If prices are high enough to limit consumption, the dealers are losing a chance to make some money if they let cheaper goods pass by them on their way to a glutted market.

The inevitable result, then, of a surplus and a very low price in the larger markets is to stimulate dealers in all the secondary and smaller markets to reach out for their share of the cheap goods. This soon brings about an approximately uniform distribution of the goods which are in large supply. Prices may never be quite as low in the small market as in the larger centers when the movement is at its height, but, broadly speaking, every market demand is met.

Summarizing on this particular point we may say that all market demands are met whenever there is a heavy movement of any perishable because the days of universal blind consignment are past and enough cars are always rolling under the control of enterprising distributors to fill all the aching voids in the markets.

WHERE SHALL A SURPLUS GO?

What happens, and what ought to happen, when more of a fruit or vegetable has been grown than can be marketed readily?

If prices are bound to be low, perhaps even unprofitable, what can be done to minimize the disaster and to get for the growers the most that the crop can be made to bring?

In spite of what we have said of gluts and famines there is a reward for intelligent distribution and a penalty to be suffered for ill-considered distribution in such circumstances.

In the larger cities the organized auctions tend to set the price for many standardized products. Prices on the "street," or wholesale produce market, tend to follow closely those established by the auction. If too much is offered at auction, prices are depressed and the buyers who prefer to buy at private sale and seldom or never patronize the auction will expect corresponding prices from their car lot receivers. The first essential of good distribution, then, is to avoid overloading the auction. Too much of any one product on the wholesale market will result in demoralized prices, but if it is in the hands of many men there will be a range of prices. Much expert salesmanship will be brought into play. If some shrewd buyer gets a new low price, the whole "street" does not hear and know it simultaneously as in the auction and there is less resultant demoralization. The "street" never stampedes as the auction may, and a single sacrifice sale is not seized upon by so many buyers as setting a price limit for their future bidding. To overload the auctions is, therefore, about the most disastrous way to try to move a surplus of standard goods.

THE LURE OF THE LARGE MARKET

When the shipper knows that it will be difficult to sell as much of a product as is going to market, he is tempted to put all of his surplus or unsold cars into a few of the largest

centers. He feels that they are likely to sell at some price, even if very low, and the big city can use a wide range of qualities. A car of products a little too ripe to be handled to advantage at wholesale cannot be sold at any price to a dealer in a market which will absorb less than a car a day. The same car will exactly suit the buyer for a chain store company in a large city through whose many stores the entire car can be sold to the consumer within 24 hours. There are no corresponding outlets in smaller markets, or if they exist they cannot absorb carloads and are therefore useless to the shipper.

If the car is decidedly off grade and sure to elicit a protest or invite a rejection from the buyer in a small or secondary market, it can perhaps be sold through the peddler or pushcart trade in the metropolis. It is unsuited to the auction, but the private receiver may be able to move it.

Finally, if it is a car of truly exceptional fruit it is likely to bring more in the largest market than elsewhere because there are more consumers by actual count who can afford the best. There is also a larger volume of high-class hotel and restaurant trade. It is an axiom in fruit and truck crop marketing that the first and best goes to the biggest city within reach.

For all these reasons there is always a tendency to push all unsold surplus cars into the largest consuming centers. The result is that a general oversupply usually manifests itself first in New York or Chicago. The disastrous break in prices is most likely to come in New York because Chicago is better able to push its surplus out in the opposite direction from the source of supply.

THE DEMAND OF THE SMALLER MARKETS

Next below a dozen of the largest cities we have many markets which may take a car or two a day of a certain product. This means that several days usually elapse before the last of each car will have made its way through

the jobbers' stores into the hands of retailers. The higher the price the slower the movement.

All such markets supply a certain amount of out-of-town trade. Goods sent out to stores in small towns, which take only a few packages at a time, are apt to be a day longer in reaching the consumer than goods sold through retailers in the city. Again, the higher the price the slower the movement. Unquestionably the demand of such markets is for fruit and vegetables which have several days of market life remaining after arrival.

In still smaller towns it may be possible to sell one or two cars a week, the quantity governed largely by the price. Here again it is obvious that we have no market for a car of full ripe fruit, berries, tomatoes, or melons. No dealer will invest in it and if asked to handle it for the shipper's account the last of the car or perhaps half of it may be a total loss. Some small towns of this sort are more dependent on country demand to move a car of perishables than are any of the markets of larger size.

From all this we may conclude that the smaller cities when supplied by carload shipments are satisfactory outlets for a narrower range of qualities than are the great cities. In the larger population a single class is numerous enough to consume a carload. In the small town the full carload of a single fruit or vegetable must meet the average requirements of the average buyer. To many of the inhabitants it may be a luxury to be ignored except for some special occasion. For this very reason these small markets should expand their total consumption, in response to a price decline, relatively faster than can the metropolis.

A PLACE FOR THE SURPLUS

Here then is a suggested answer to the problem of pushing a surplus into consumption. During all the early part of the season when no surplus existed the smaller markets have had only so much as they could handle at a relatively

high price, for the stock sent to them has been of average quality or better. Meantime the best and the worst and many cars of the average have gone to the large cities and a far larger part of the total number of potential consumers have already been purchasers. By the time the height of the season is reached, the goods are no longer a novelty to most of the buyers in big cities, but half or more of the potential buyers in the small towns, the villages, and on the farms have not yet made their first purchases.

To reach and to fill this potential demand at just the right time would be a triumph for good marketing. It would exemplify scientific distribution at its best. Probably it has never been done with any near approach to perfection except in the case of the less perishable fruits such as apples and oranges.

A realization of the true situation has, however, begun to dawn on some of our national distributors. They are talking of the need of better salesmanship and a heavier pressure of supplies in the smaller markets as the true remedy, or at least the best practicable palliative, for a general overload. It is better to risk losses on half the extra cars which may be pressed upon the smaller markets than face certainty of losses on all if they pile up in large centers.

BREAKING THE LARGE MARKET

In spite of all the reasons for sending different sorts of cars to the larger markets the worst disaster that can come to the shippers of any perishable crop is to have a general crash of prices in these centers of consumption. Such a crash breaks down wholesale prices everywhere. The buyer at shipping point, if he buys at all, bases his offer on the ruinous quotations from these demoralized yet dominant centers. The dealer in the smaller city buys less and less freely, knowing in many cases that his market is likely to be invaded any day by truckloads from the congested centers. He hesitates to buy and try to stimulate consump-

tion while he sees the leading markets paralyzed with no one daring to invest any money in the goods except for the current day's jobbing or retail business.

Many a dealer could be induced to buy more freely and put on a special drive to move a lot of Georgia peaches or California cantaloupes if given a little lower price than corresponding goods were bringing in the largest cities, provided the city trade was normal or nearly normal. The same dealer is less willing to attempt the same thing after prices have gone to smash. He feels then that no matter what he may charge, his customers will have heard of lower prices elsewhere. The psychology of the situation is bad. It is hard to develop enthusiasm over something which is recognized as a drug on the market.

It may seem a strange argument that if the markets of secondary size received a larger proportion of the total shipments they would pay more per car for them than they do for a smaller quantity when the large markets are glutted, yet this probably is the case. There may be 50 towns where prices are directly influenced by the New York and Philadelphia markets, each of which could handle a car of peaches in from one to three days. If the price in the large markets remained fairly steady, they would all buy with confidence and at about the market price thus established. If distributors offered reduced prices in order to stimulate sales in one-third of these towns, that fact would have little if any effect on the prices in the large centers. No dealer would go from New York City to Binghamton looking for peaches because a single car had been sold there at a discount or because peaches were retailing at very low prices in that town. The dealer in Binghamton will, on the other hand, ignore offers from Georgia and place his order with a broker in New York whenever the New York price is more attractive than the Georgia price, and he will quote the New York price back to the Georgia shipper as a sufficient reason for declining to buy from him at any higher figure.

Distributors have sometimes criticized the market reports of the Department of Agriculture because they take into account the bulk of the sales of ordinary goods. They maintain that all of their soft and off grade fruits go to these larger markets and that they should and must get more for the cars sold to the smaller cities than the average of their New York returns. It is maintained that the quotation of full-car sales is especially likely to be misleading because these often contain stock not suitable for jobbing in the usual way. Such carloads would be wholly unsuitable for the smaller cities, yet the publication of these prices as of carload sales in, say, New York, makes it difficult to sell better goods in the smaller cities at a fair differential over the New York price.

All this goes to show that if growers are to get the most that is possible for their crops which tax the capacity of the markets, the distribution of the crop must be in progressive and experienced hands.

As noted in discussing the national distributor, the problem of scientific distribution cannot be solved by a group of competitive distributing agencies. If there is one case in which above all others competition is disastrous and coordination of effort is essential it is in the proper apportioning of supplies to the markets and in concentrating salesmanship or sales efforts in the right regions or markets at the right time.

When shippers or distributors roll goods blindly into a few big markets because they do not know what else to do with them, they are confessing their own failure to master their own business and are really turning over the job of distribution to their consignees. These latter usually have no interest in the crop as a whole and cannot possibly collaborate in its effectual handling. Each can do no more than try to sell what has been sent him. The result is far more likely to be duplication of effort and expense than any approach toward cooperation in the interest of the producer or shipper.

Evidently if the prices in the larger markets are to be protected from the pressure of an oversupply, there must be centralized control of distribution. This also implies that shipments must be pooled in the determination of prices for like qualities no matter in what market sold.

IS THERE DANGER OF MONOPOLY?

The reader who is not well acquainted with the problems and limitations of the fresh fruit and vegetable trade may fear that efficient distribution as here outlined implies the use of a monopolistic power which might be made oppressive. The experienced trader and the research student of the business agree that such a thing is impossible under present conditions.

In the first place, most of these goods can be treated as nonessentials. As long as supplies press upon markets as they have in recent years, a consumer's strike of even a few days on any one product would send so much of it to the dump that the price would be forced down.

In the second place, inability to carry over these goods from season to season is effective in preventing any systematic cornering of even the least perishable, such as apples and potatoes.

Third, there are many competitive regions of production of most fruit and truck crops and there have as yet been no examples of effective cooperation between widely separated areas, with the possible exception of the American Cranberry Exchange.

Finally, a monopoly of the sale of a nonessential perishable could be maintained only if production could be controlled. This has never yet been done in any case where widely separated areas shared in the industry.

We are forced to the conclusion that the methods and conditions which would be intolerable and are forbidden in the trade in the nonperishable necessities of life are the very methods which should be followed and the very con-

ditions which must obtain if our producers and distributors of fresh fruits and vegetables are to serve most effectively either their own best interests or those of the consuming public.

Effective distribution awaits complete coordination of effort.

XXIII

DELIVERED SALES VS. SHIPPING-POINT SALES

Most controversial subject. Growers will decide it. Forecast of trend. Stock arguments for delivered sales. The auction's claims. Commission men's claims. Stock arguments for f.o.b. sales. Risks. Plausibility is not proof. Industry in state of flux. Psychological considerations. What the grower wants. What he fears. Cooperation as an evidence. Delivered sales. The city dealer's psychology. Wants to buy at home. Significance of broker's service. Why he is used. Delivered sales again. Why dealers buy through brokers. Avoids out-of-town risks. What is an f.o.b. sale? A broker's definition. Sales or options. Few deposits on orders. An impending change. Shipping-point prices speculative. Betting on prices. Proof by f.o.b. auction. Rank speculation. Unstable foundation. New safeguards for the shipper. Clearing houses. Better trade practices. The Produce Agency Act. An element of safety. The effect of volume. An official report. "Burying the deal." Conclusion and forecast.

HERE we plunge into the most controversial subject in the whole field of fruit and vegetable marketing. Everybody in the industry has his firm convictions or his unyielding prejudices. The wholesale trade is easily divided into two general classes, those who believe that goods should be sent to market for sale and who prefer to do as much business as possible on commission as agents for the grower or shipper, and those who advocate buying outright from the grower or his organization at point of origin and thereafter merchandising the goods to suit themselves. The fact that both theories are still earnestly preached to the grower and that large volumes of business may go one way one year and the other the next proves that evolutionary forces are still at work. Neither system has proved itself the fittest and entitled to survive at the expense of the other. Advocates of each have arguments which are persuasive. Under certain circumstances each method can be shown to be safer or more advantageous than the other.

In the end it will be the grower and not the dealer who will decide where he will sell his perishable products. No one can compel him to surrender ownership or possession until he is willing or deems it advantageous. The grower may be confused today. He may halt between two opinions. He may make foolish and costly experiments and changes in his methods of sale. It does not necessarily follow from all this that he will continue to flounder. He will not drown in the cross currents of opinion which agitate the market place. Eventually he will paddle his own canoe and carry his own products to the market wherein he can sell to the best advantage. In other words, he will retain his title to his goods as long as it proves profitable to do so and no longer. He then will sell them, or have them sold for him, only when the next step in their distribution can be handled more economically by others than by him.

When the turmoil incident to the riotous expansion of this business has had time to subside, it will be much easier to pursue consistent sales policies. We must be nearing the time when production will be less erratic than in the recent past. With some of the speculative value of newly exploited regions evaporating we may hope for greater stability of ownership and longer terms for tenants, both having a steadying influence on fruit and truck production.

As the situation thus quiets down, dealers and bankers will arrive at more intelligent policies as to the crops and regions in which to invest or lend money for production. As fast as such conclusions are reached, the financing of stabilized production for which permanent outlets have been provided will be simplified. Lack of financial support will finally operate to limit wild plunging in truck crop production in regions not recognized as permanent and dependable sources of supply. Inevitably such regions must in future make a place for themselves by relatively slow degrees.

With this forecast as to the inevitable trend of the industry, an analysis of the present-day arguments for both delivered sales and sales at shipping point will be attempted.

STOCK ARGUMENTS FOR DELIVERED SALES

The organized auction companies in the larger cities have a formidable array of arguments in favor of their method of sale. Theirs are delivered sales. They act only as selling agents for the owner of the goods. They claim that the buying demand of the city is present at their sales and that goods bring what they are worth. They bid particularly for the patronage of cooperatives or other shippers of large quantities of standardized perishables.

The commission merchant argues that as he is in permanent contact with all the jobbing trade in his city he can bring all offerings to the attention of the class of buyers for whom they are best suited and can secure for the shipper all that his products will bring in that market. He claims that his commission is less than the expenses which must be met and the profits which must be made by the dealer who buys f.o.b. shipping point for resale in that market. He maintains that if this is true the grower who sells f.o.b. must take less in the long run than he could get by consigning his goods for sale on commission. He argues further that no one has any use for the goods at shipping point, that all sales are speculative until the goods are sold to the jobber, and that the speculator must always aim to buy safely below the probable market price on arrival. The man who loads the car can get as cheap a freight rate as the dealer who buys it.

STOCK ARGUMENTS FOR F.O.B. SALES

The claim is made that the dealer who buys at the point of production always has possible markets in several cities, and, with the option of diverting his car to the best outlet which appears while it is on its way east or north, he can afford to pay more than the commission merchant in any one city can be expected to return. If the buyer ships to his own city house, he claims that he will outsell the com-

mission man who is his competitor because he will be keener in soliciting the out-of-town trade, while the commission man naturally tries to hold his city trade and is not averse to giving them the benefit of a full market.

The dealer claims that, with his money in the goods, he will hustle day and night to find a customer, while the commission merchant keeps regular hours and can be expected to return no more to the shipper than the goods will bring when exposed for sale on his sidewalk. The owner will ship goods out of town in a minute if he can get a dime more per package or per 100 pounds. The commission merchant cannot be expected to do so. Such sales often involve risks which he cannot afford to take for the sake of his commission on the slight difference in price. The dealer who ships his own produce out of town for a net increase of a dime a package or bag above freight gets the dime. The commission man who does the same thing gets only a commission on that dime. This will not pay for the labor of putting the goods on the car.

On the grower's behalf it is argued that he takes the risks of production and ought not to take any more. He is told that the risks of trade should be borne by traders. If the grower sells his produce f.o.b. at his station, he knows what he has, but if he consigns to a commission merchant, in the language of a once prominent organizer, he "closes the car door, bids it good-bye, and merely hopes that someone will send him something for it."

The grower can demand cash or satisfy himself as to the responsibility of the buyer at his station. He has little if any practicable recourse against his distant agent, the commission man, and can seldom know whether his interests have been honestly guarded.

PLAUSIBILITY IS NOT PROOF

Either set of arguments would be convincing if we could accept the premises of those who advance them. Specific

cases and conditions can be cited to sustain either side. Where does the weight of argument repose?

Again we revert to the fact that in many respects our industry is still in a state of flux. The vital question for the student of marketing is not, after all, what has happened under specific conditions in the recent past, but rather which of these conditions are transient and which are permanent. If coming changes can be foreseen, we can forecast their effects on methods of sale. The arguments for or against a certain procedure may lose all their force the moment a vital change occurs in some detail of that procedure. New checks or safeguards may produce exactly the same result. Just now there are too many arguments advanced on the apparent assumption that the things which are are to remain.

PSYCHOLOGICAL CONSIDERATIONS

The mental structure of man is more enduring and is subject to less rapid changes than is our marketing organization. Man enjoys the excitement of taking a chance when there is not too much involved. When the stakes are high, the game becomes a serious business, often a desperate one. Prudent people set definite limits on the risks they will willingly assume.

As long as the American farmer remains to any considerable extent an individualist, he will be willing to take his chances on a rise or fall in prices while his goods are on the road to market. He wants a competitive price in the best market he can reach. He knows that his perishables are worth more in the city than they are at his station and he knows that in the long run the difference must be more than the freight charges. The grower wants that city price, less freight. He knows that no buyer can consistently pay him that price at his home station. If in spite of this fact the producer sells to a buyer instead of consigning to a representative in the city, it is either because he enjoys whetting wits with the dealer and thinks he can outguess him

regarding the market, or because he does not believe that there is any available machinery through which he can actually secure the wholesale value of his goods in the city if he does consign them. He sells at home for fear he will go farther and fare worse. Much past experience confirms this fear.

But the grower is not happy over this situation. He feels that he is under compulsion to sell f.o.b. and he resents it. There are plenty of men and firms offering to represent him in the markets, but they are 1,000 miles away, and he does not believe that they will make his interests their first consideration. He refuses to play the game that way because he has no way of knowing that it is being played honestly. The risks are too great. He is not afraid to trust the market but he is afraid to trust his property and money to a stranger over whom no public authority exercises any sort of supervision or regulatory power.

The market is controlled by economic and psychological forces with which the grower has no quarrel. The railroads which haul his goods are closely regulated by public agencies. The banks which handle his drafts or deposits are under official supervision. The commission man alone among all who function in his marketing is a free lance, answerable to no one save to a court of law. Distance alone will prevent the shipper from resorting to a civil suit, and if he does sue, the other party has all the evidence.

This mental attitude of the grower, which prompts him to sell in the big market rather than at home, is perhaps as prevalent and as permanent as are our commonly accepted conceptions of right and wrong. Generations of repression will hardly suffice to change this natural inclination and ambition.

Here then we have found one of the permanent factors in the marketing situation. The grower just naturally wants to sell his goods in the consuming center. He always has wanted to and he always will want to. He is built that way, and he can't help it. Perhaps, after all, he is right.

COOPERATION AS AN EVIDENCE

We noted in a preceding chapter that the elimination of the local buyer has often been one of the avowed objects of local cooperating groups. These growers have resorted to cooperative action for the purpose of doing collectively what they could not do individually—namely, to sell in the consuming center instead of at home. In doing this they have acted in strict accord with the mental attitude of the average man which we have just set down as a permanent factor in marketing.

The members of a shipping cooperative believe that their volume, their organization, and their financial strength enable them to secure fair treatment in the market place and that is where they go to make their sales. It is true that some organizations sell largely on an f.o.b. basis even when cars are rolling or even after arrival at terminal yards, but the buyer is sought and solicited in his home town. The sale is really made where the goods are wanted. They have gone abroad seeking the market. They have not accepted a price at the home station offered for goods held there for sale. There are exceptions, of course, but they are in fact exceptions.

The growing use of the organized auction by cooperatives and by hired distributors is another expression of this permanent mental attitude. The auction has been accepted as preferable to other agents whose services are offered for a price in the terminals. Furthermore, the patron of the auction must have a personal representative on the ground to sanction the sale. The shipper feels that this adds to his protection.

The cooperatives are simply doing what their members would have done individually if they could. They are making delivered sales. If the average member felt as safe in sending his individual car to market as he feels when it is one of the many handled by his association, it is a safe guess that the ties of cooperation would be loosened.

THE CITY DEALER'S PSYCHOLOGY

The wholesale dealer in a large city is doing business with jobbers, retailers, or special classes of large consumers. The typical wholesale house has a limited out-of-town trade, sometimes extending to a considerable radius, but seldom amounting to more than an important minor item in the total business.

This typical dealer is primarily interested in the business he does in his own store. He is not a general distributor nor a nation-wide operator. He is as much a local fixture as is a hotel. He has nothing to gain by multiplying functions unless this is necessary to protect his profits. He has relatively little interest in average prices. He would like relatively stable prices and he must have a margin between his buying and his selling price. If he must build or maintain an elaborate buying organization to supply his needs, his business becomes top-heavy. He does not willingly add the risks of transportation to his business, for his sale price should be based on a quick turnover of goods of definite cost. Logically and inevitably he prefers to buy his carloads in the railway yards where he can inspect before acceptance, then place on sale immediately.

A car of fruits or vegetables is worth more to this dealer in his home town than anywhere else. If he must buy at shipping point he must assume risks of delay and deterioration which are undetermined and which may make necessary a resale price quite different from that he could have fixed had he bought delivered. The difference in value to this dealer between a car delivered and a car of the same grade at shipping point is more than the freight.

In short, this dealer has a list of reasons for wanting to buy his supplies in his own terminal which are almost parallel to those of the farmer for wishing to make a delivered sale. The dealer is willing to risk his own judgment of quality when he sees the goods. He expects to compete with the salesmanship of his fellow dealers, but he does not

feel that the risks of transportation belong to him or that his selling margin should be fixed to cover them. This dealer is not willing to assume any risks or costs not necessarily incident to the breaking of bulk, rehandling, and resale.

This mental attitude on the part of the dealer may be set down as the second permanent factor in the marketing situation.

SIGNIFICANCE OF THE BROKER'S SERVICE

Perhaps a chapter should be given to the broker and the growth of the brokerage business in the fruit and vegetable trade. At first glance he appears to be the least necessary of all the intermediaries between the orchard and the table. He may prove to be permanent in the trade, but it is not unlikely that within less than another generation the brokerage business may nearly all be done as the carload department of the consignment house.

We bring the broker into the present discussion because the growth of his business is another evidence of the strength and universality of the desire of the producer to sell in the consuming center and of the preference of the buyer to buy in his home town.

Since the broker does not touch the goods, has no store nor warehouse, in fact does his business in an office with a desk, a telephone, and a buzzer for the telegraph messenger, it does look as though the industry could get along without him. Why does the shipper pay him $10 or $15 or even $25 to negotiate a sale of the car to a dealer in the next block? Why does the dealer in the next block buy a carload of fruit from the broker instead of from the shipper direct?

The grower or shipper hires the broker because it is the nearest he can come to selling directly in the terminal market in accordance with his inborn desire. The broker may or may not be a wholly faithful servant, but in several respects it is more satisfactory to sell through him than through the commission merchant.

In the first place, the broker usually gives the name and address of the buyer. He does, in fact, bring buyer and seller together in a way that the commission man does not and cannot. The shipper enjoys this sense of direct contact. He feels that he has a hand in his own sale and he likes it. It seems to him that, since he cannot be on the spot to negotiate his own sale, this is the next best arrangement. Perhaps the next in importance is the fact that the identity of his shipment is preserved to the end. The shipper gets no average price of the day, nor does he get a scale of prices for successive sales out of the same lot as so often appears on the commission man's account sales. He knows that what he gets is the price of his own shipment and nothing else. This tends to satisfy his unconquerable individualism.

Equally important to the shipper is his confirmation of the sale before it can be consummated by the broker. Here he finds that sense of individual responsibility for what is done which is always so satisfying. He also knows or assumes that his shipment has been offered by the broker to a number of dealers and that the price he gets is really a sort of auction price, the result of as much competition among buyers as the broker could develop.

The shipper may say that he employs the broker as a means of selling f.o.b. By this he usually means nothing more than that he gets a net price as of his shipping point and not an account sales with freight and other items deducted as he does from the commission man. As a practical matter, he is using the broker instead of selling his goods at his home station for what the local or traveling buyer will pay him. In spite of the language which is written into the contract which the broker negotiates, the practical result is a delivered sale. The grower has sent his carload of produce toward the market and entrusted its sale to the broker for the express purpose of getting the benefit of its value in the market instead of contenting himself with its value at home.

The existence of the broker is a proof of the shipper's determination to send his goods to market to be sold delivered. He is neither more nor less than a means to this end. For many reasons he is preferred, under present conditions, to other agencies which offer their services to the grower for the same purpose. His business is of interest to the student chiefly as a means, now largely used, for making delivered sales.

WHY THE DEALER BUYS THROUGH BROKERS

The dealer buys through the broker in order to bring his transactions as near home as possible. He buys a car already in town or a car to arrive within a day or two. He sees what he buys before he pays for it, and in practice he does not take it if it does not suit him. Regardless of the wording of the contract, the broker actually makes him a delivered sale. That is the practical working out of the system as it exists today.

The dealer finds it cheaper to buy through the broker than to telegraph about the country to locate supplies. The broker is also the shipper's agent, and as he never breaks bulk he is never a competitor of the dealer in selling to his regular trade. The dealer would prefer never to buy from a competitor, but he does like to buy without assuming what may be called out-of-town risks, and this is what the broker enables him to do.

The broker frequently offers, by description, a larger assortment of cars from which to choose than can be found unsold in the freight yards or warehouses of any one city. This is even more certainly true of the collective offerings of all the brokers in town, and in neighboring towns, with whom the dealer is in frequent communication.

There are other reasons why the dealer likes to buy from a broker which have largely to do with trade relationships. This brief discussion is simply to emphasize our point that the brokerage business is a proof and expression of the

preference for a delivered sale which abides alike in the country shipper and the city dealer. The broker's business is interesting at this point in our study chiefly as an expression of an underlying determination on the part of producers and wholesale dealers to do their business at the market and not in the country.

WHAT IS AN F.O.B. SALE?

The lawyer will give us a satisfying legal definition of this term. He will tell us in effect that a sale f.o.b. shipping point means that the shipper delivers the goods, properly packed and loaded in the car at point of origin, and that title then and there passes to the buyer, who assumes all the risks and costs of transportation. "F.o.b. usual terms" carries the further understanding that the buyer has a right to inspect the goods on delivery before paying for them. Such sales are commonly called sales at shipping point, but are they so in fact? The advocates of f.o.b. selling claim that it eliminates the risks and uncertainties of consignment, but what they really mean is that they save the shipper the necessity of dealing with a commission merchant.

Is the f.o.b. sale of today really a sale in the grower's home market? If not, where has custom drawn the line between f.o.b. and delivered sales? Which way is the trend?

Early in 1927 a broker of 15 years' experience in a large city was a witness in court. He had sold a car of U. S. No. 1 fruit, while en route, to a dealer who rejected it on arrival. The market had declined, and the dealer faced a loss if he accepted the car. Government inspection when shipped, and again on arrival, showed that the goods were of the contract grade. There was only a little decay in transit. The shipper was suing for loss due to the rejection.

The broker was questioned by the judge as to the nature of the contract which he had executed between the parties.

He said that the car was in a specified city about half way between the shipping point and point of final delivery when he sold it. The judge asked how it was sold. The broker said "f.o.b." The judge asked just what the trade understood by that term. The broker said, "That means that the buyer pays the freight."

Repeated questioning by the judge proved that the broker had no further concept as to the meaning or significance of an f.o.b. sale. The idea that it implied a transfer of ownership at point of shipment had never penetrated his understanding. For 15 years he had been executing contracts which in actual practice were not carried out further than that the buyer paid the freight.

This meant that if the buyer did not want the goods on arrival the broker did not really expect him to take them. In all his negotiations he had in mind a delivered sale, one in which the shipper was in fact carrying practically all the risks of transit damage and of market decline!

While many brokers might have been able to give a better account of themselves on the witness stand, honesty would have compelled a majority of them to admit that, in effect, the usual f.o.b. sale did not operate to relieve the shipper of the risks of transportation.

SALES OR OPTIONS

Legally, the distinction between any sort of sale and an option is clear enough. A sale involves a transfer of title, while an option conveys only the right to complete a sale or purchase at a specified price within a given time. When an option is given, the vendor withdraws the goods or property from the market. The chance remains that he may be compelled to offer them again if the vendee decides he does not care to consummate the purchase. Those who secure options expect to pay for them. The vendor who gives an option and withdraws his goods from sale demands some payment for the risk he incurs.

The sale of fruits and vegetables "f.o.b. shipping point usual terms" seems to have degenerated into little more than an option. In fact, it is even less desirable to the shipper than an option would be. When the broker informs him that his car, now rolling toward the market, is sold f.o.b. he withdraws it from sale. He may even divert it from its original destination in a large market to a small town which can consume only one carload a week of this particular product. If the goods are rejected, he may be subjected to serious loss and additional expense and delay in concluding a sale.

It would seem that if security or partial payment should be demanded in connection with any sort of uncompleted transaction it should be demanded in the sale of perishables in transit. This, however, is seldom done. The broker, at best, simply executes an enforceable contract of sale between the parties. In practice the shipper cannot afford the expense of enforcing the contract in a distant court and for all practical purposes has given an option on his goods and has been paid nothing for it.

Everyone agrees that this condition of affairs is indefensible. It seems impossible that it can continue. The shipper's position and habit of submission seem absurd. They are in part attributable to the buyer's market which for several years has prevailed in this industry.

These facts all add emphasis to our conclusion that the shipper is basically determined to make a delivered sale and will send his goods to the buyer, virtually on approval, with no guaranty of their acceptance, rather than confine himself to such a cash market as may develop at his shipping point.

AN IMPENDING CHANGE

Obviously no system can long endure among business men when its injustice and absurdity are generally recognized. The present enormous volume of business done through brokers will not continue to flow through this

channel unless it can be conducted under better safeguards than in the past. The broker must either make a genuine f.o.b. sale and give the shipper every possible assistance in enforcing delivery or he must frankly and avowedly negotiate delivered sales.

Shippers are being driven to seek legal methods of concerted action. There is much discussion of clearing houses in important shipping districts. The correction of abuses under the terms of the usual f.o.b. sale is one of the major objects sought. It seems not unlikely that the broker may soon be required to obtain a deposit or otherwise guarantee the good faith of his purchaser. Whenever shippers unite in demanding this sort of service, many brokers must go out of business. Many of the "sales" now made "f.o.b. usual terms" will not be made when the "buyer," who now is frequently simply taking a free option, is compelled to place a deposit with his order. Many brokers will lose important buying customers the moment they become in fact the energetic agents of the shipper.

It seems logical to conclude from all this that the broker and his business as it now exists are facing an era of radical readjustment. What are likely to be the outstanding results?

If our analysis of permanent, basic forces is correct, these changes will tend to give the shipper control of his goods a little farther down the line toward the consumer. The shippers, acting collectively, are likely to take charge of distribution. If the speculator wants to bet on prices a few days ahead and divert cars from town to town at his pleasure, he will find it increasingly necessary to buy them first and risk his own money rather than the shipper's goods. As the shippers assume responsibility for orderly distribution, they will not allow too many cars to roll into a small market on orders which are not sales. They will know that rejections are sure to follow and that the net result will be expense and delay in placing most of these cars where finally they will be used.

When dealers in these smaller markets find that they must take what they order and that they cannot get two cars delivered from which to choose the better, they will have less use for the broker. They will learn that certain grades, shipped by members of certain clearing houses, are dependable as to quality. Since the broker will be shorn of his present power to help them secure concessions from shippers, they will not need him.

We conclude that if the broker is to remain prominent in the marketing of perishables he must become a local representative of shippers or shipping groups which will limit the flow of goods into his territory and will require him to render much more service than at present. If he negotiates sales, they will be confessedly delivered sales and the quality of the goods will be attested by competent inspection. Possibly the broker must give bond to secure the shipper against loss on the sales he negotiates. Possibly the brokerage and jobbing business in the smaller cities may be merged, while, as suggested, the commission houses in the larger cities will do most of the brokerage business through a carload department.

SHIPPING-POINT PRICES ARE SPECULATIVE

The argument that the grower who has borne all the risks of production should not bear the added risks of shipment and delivery is specious. Those who support this contention say that the f.o.b. sale is the safe method of disposal and that retention of title until the goods are sold in the market adds to the grower's risk. It is contended that if he can sell f.o.b. and does not do so he is speculating on the market.

The buyer who buys part of his goods delivered and part f.o.b. shipping point takes more chances on the latter than on the former. For him there is more of the element of speculation and uncertainty in the f.o.b. purchase than in one made in his own city. He must have a price at

shipping point enough lower than that which he pays in his own terminal to cover all his risks of transportation and of market decline with a further margin of safety. In the long run he must have a greater profit in his f.o.b. purchases than on those made at home.

If this is true, it follows inevitably that in the long run the shipper or grower can save for himself most of that additional profit which the buyer is making on his f.o.b. purchases.

It is the f.o.b. price which is speculative. It must be enough below the value of the product in the market to cover a number of risks. Buyer and seller, consciously or unconsciously, estimate these risks. The f.o.b. price finally agreed upon has many of the elements of a wager. The seller takes less than the terminal market price, betting that the difference will not pay for the intervening costs and losses. The buyer bets that the costs and losses will be within this difference and leave him more profit than he would have on a delivered purchase.

PROOF BY THE F.O.B. AUCTION

The f.o.b. auction ventures of 1924-25 excited a tremendous amount of interest throughout the industry and were watched intently by business circles far beyond its bounds. Important markets and shipping centers were linked together by leased telegraph lines tapping six or eight auction rooms at once. Officially inspected cars were listed and catalogued by telegraph daily and auctioned simultaneously next day in all these markets. The bidding was competitive between cities. The buyers were guided solely by the printed copy of the inspector's certificates. Their bids were on an f.o.b. basis.

This system appears to favor the most discriminating buyers. Only the most intelligent could be expected to discriminate accurately between the qualities and values of different cars as indicated by the printed summary of

the certificate. The writer was among those who feared that so few buyers would trust their own ability to visualize the differences between cars, that these auctions would die for lack of bidders.

When the California grape movement came on in volume and the f.o.b. auctions had a large amount of business to handle, the condition which developed was exactly the reverse from that anticipated. The buyers who swarmed the auction rooms were to a large extent rank speculators. They did not trust their judgment of the car so much as they did their judgment of the market. They bought for a profit, often listing the purchases of today for resale tomorrow. It is said that some cars were sold five or six times between California and New York or Boston, always on the f.o.b. California basis. This speculative buying and relisting became so bad that it is assumed to have been a major cause for the abandonment of this type of auction by most of the best buyers.

Underneath the whole experiment we can see an unstable foundation. The psychology of the legitimate dealer was ignored. The competition of the auction room does not long attract him when it is a competition to determine who shall assume a risk. He likes to bid on goods before him. He can then be guided by their immediate resale value. He is pitting his judgment of quality against that of other dealers without assuming any risk that the quality may change before he takes possession.

The failure of the f.o.b. auction companies to secure or hold the patronage of the best buyers indicates that these men prefer to buy on a delivered basis. The grower who would secure the best price which they will pay must offer them the goods in the nearest railway yards.

NEW SAFEGUARDS FOR THE SHIPPER

Every safeguard which can be thrown around the delivered sale will increase the volume of business done on

that basis. All that is necessary is to assure the shipper fair treatment by his agents and he will forward his goods to be sold at the point of consumption. Legislation recently enacted and further legislation under active discussion will have exactly this effect.

There are definite plans taking shape among shippers in several sections of the country looking toward the formation of clearing houses of various kinds. Three have operated during 1927.

In some cases the plans contemplate such a complete pooling of information that the final disposition of almost every car may become a matter of common knowledge in the shipping community. If brokers allow too many cars to come into any small market on orders, knowing that rejections will follow and that one shipper will be "played against another" to the injury of all, these clearing houses will develop the fact automatically. If commission men solicit far more tonnage than they can possibly handle with justice to their clients, the clearing house can quickly bring the facts to light. In either case such publicity will cure the evil promptly and increase the safety of the shipper.

The voluntary registration plan proposed by the Department of Agriculture in its *Service and Regulatory Announcements No. 97* (Agricultural Economics) issued in December, 1925, was held in abeyance for several months by injunction proceedings in which it was sought to prevent the Department from putting its plan into operation. It was a plan to bring the strongest moral pressure to bear upon agents of every kind to deal honorably with the shippers of fruits and vegetables. The scheme proposed to give certain advertising advantages to those who voluntarily enrolled with the Department in an agreement to abide by certain specific rules for the conduct of business and the settlement of disputes. While the matter was before the courts, Congress passed a regulatory measure which made necessary a complete revision of the plan and resulted in at least its temporary abandonment.

THE PRODUCE AGENCY ACT

On March 3, 1927, President Coolidge signed an act known as the "Produce Agency Act." It became effective July 1, 1927. It provides that perishable farm products received in interstate commerce by commission merchants and others may not be destroyed, abandoned, or dumped by agents of the shipper without good and sufficient cause therefor. It also, for the first time in the history of the United States, makes it a misdemeanor, punishable by fine and imprisonment, for an agent receiving or handling any such perishable farm products in interstate commerce to fail, through fraudulent intent, fully and faithfully to account for them, or to make any false or fraudulent statement concerning their quantity, quality or condition.

It is altogether probable that these latter clauses will have a more far-reaching effect on the industry than will the more prominent provisions of the act which relate to dumping. Formerly, shippers who had some evidence of fraud on the part of those entrusted with their goods seldom took the trouble to complete their cases against their agents because the laws provided no punishment for the offence.

It is now the duty of the Department of Agriculture to investigate such complaints and to present the evidence, through the Department of Justice, to the United States Attorney for the jurisdiction in which the accused may be brought to trial in a United States Court.

A complete discussion of the many ways in which unfaithful agents may be convicted and punished under its provisions might suggest to prospective offenders ways and means to defeat still further the ends of justice.

The reader may give his imagination full play in picturing possible methods of investigation and enforcement of this act and the regulations thereunder.

The net result of this enactment will be to inject a new and serious element of risk into all dishonest practices of which commission men and other shipper's agents have

long stood accused. If prosecutions drive unprincipled agents out of business, or if official investigations of complaints, now authorized for the first time, show that these agents are generally trustworthy, the result will be the same. The producer will send his perishables to the consuming center on consignment, for sale on commission or through some other agent, with a confidence he has never before felt.

Nothing in this act increases the inducement to sell f.o.b. On the other hand, its whole purpose is to make the other type of business more attractive.

THE EFFECT OF VOLUME

If a further concluding argument or consideration is desired, attention is invited to the enormous volume of the present-day movement of perishables. No man will long sell his goods at his shipping point for less than it has cost him to harvest and pack them. It is useless for buyers to make such offers. Yet every year thousands of carloads bring so little in the larger markets that the grower gets nothing for his labor. When the buyer offers less than cost of production, the grower will consign. When these consignments sell in the markets for less than freight and packing costs, it is cheaper for the buyer to buy in the terminal than at the shipping point.

Whenever, then, the market reaches a certain state of depression, the f.o.b. market at the grower's home station ceases to exist. Again and again in recent years it has been found that dealers who bought one year when prices were good have declined to buy the next year when prices were low, but have offered to handle the goods for the grower's account.

An official observer stationed in the Imperial Valley of California during the 1926-27 lettuce season analyzed the situation in language which illustrates this attitude of the buyer in the face of a surplus, as follows:

One apparent reason why prices have been so consistently low this season has been that the trade was well informed as to the volume of lettuce to move. Dealers were right in conjecturing that, when prices advanced 25 cents, the lettuce was here to move and heavy shipments would follow, and there was no opportunity for speculating. The first 25 days in February, daily arrivals at New York City averaged 32 cars and last season for the same period 25 cars. Yet, last year, with very poor quality, the top price ranged $3.50-$5.50 and this season, with the finest quality, the top price ranged $2.25-$3.50. For this same period, daily track holdings in Chicago averaged 123 this season compared with 104 last season, and the top price this season ranged $2.25-$2.75 compared with $3.00-$4.00 last season. So that, as arrivals and track holdings were not so heavy at the terminals, the poor market this season must have been caused by the fact that receivers knew that any advance would always bring out an avalanche of lettuce, and, in the 7 days necessary to reach Chicago and 11 days to reach New York, any speculation on an f.o.b. basis would prove disastrous.

A known surplus hangs as a constant threat over the market. It precludes the possiblity of any material rise in price and therefore no dealer will buy at the point of production except from hand to mouth. Many will not risk buying at all, knowing that the goods will roll toward the market unsold if they refuse to purchase.

The hopeless inactivity of the f.o.b. lettuce market in the Imperial Valley under the conditions described in the foregoing quotation was shown dramatically by an impromptu affair staged in the principal hotel of the region one February evening. We quote from the statement of an onlooker:

I attended a rather spectacular ceremony at the Barbara Worth Hotel (El Centro) the other evening. When the cash f.o.b. price had reached $1 and few sales at that figure, shippers decided to bury the 1927 lettuce deal. A crate of lettuce was brought into the lobby, draped with crape, covered with flowers and wreaths, and surrounded by 13 lighted candles. The "preacher," a well-known dealer, came in, garbed in solemn vestments, carrying a *Produce Reporter's Blue Book* as his "bible." Five of the lettuce shippers acted as pallbearers and were seated around the "corpse." The dealer preached a very

touching sermon, read passages from the *Blue Book* regarding shipments that did not bring freight charges, and ended with a prayer to "Father Cal Coolidge," asking that lettuce be added as one of the commodities included in the Farm Relief Bill. A Jewish shipper acted as rabbi, performing similar rites. The two paid fitting tribute to Lettuce, saying how fine and splendid it had been, repaying bounteously all care bestowed upon it, and how it died of a broken market. The coroner's inquest certified that death was caused by a bursting head, induced by the late rains and sunshine, which brought water on the brain. After the ceremony, which was attended by the elite of the lettuce industry, the pall bearers, to the tune of a funeral dirge played on the Victrola, proceeded to carry the remains away. Services were at 9 p.m., dissolution having occurred at 5 p.m. This demonstrates how Americans can take a licking and still retain a sense of humor.

CONCLUSION

We believe that the facts brought together in this chapter show that the trend is now definitely toward a more general use of the agencies through which delivered sales are made; that these agencies are about to be checked up, regulated, and supervised, by both official and trade bodies as they never have been before; and that both shipper and city merchant will respond by again doing most of their business in the terminal markets as they did in the earlier days of the industry.

Until the era of chronic surplus production is definitely past, the major business of this country in farm perishables will not be conducted through sales made at point of origin. In seasons of scant production speculators will, of course, operate largely at shipping points, but such operations are almost sure to be sporadic. They cannot be depended upon to furnish important, permanent outlets.

Inevitably shippers must try to improve, as rapidly as they can, the machinery through which delivered sales can be made, for this is the machinery through which the business of the near future will be done.

An industry completely organized and not burdened with a surplus could establish and maintain a permanent f.o.b. market. There are but few such examples among our fruits and vegetable. If one is found, its exceptional nature and circumstances will but prove the rule.

XXIV

WHY THE NEARBY PRODUCER SURVIVES

Erroneous impressions. The high price level. Local grower's advantage. Marketing costs, freight. Packages. Locally returnable. Reused. Marketing costs, handling. Local advantages. Less loss in the field. And from culling. From ripes. High-quality products. Homegrowns in season. Selected varieties. Roadside markets. Advantages of a single nearby market. Illustration. Volume of local supply. Forecast and summary.

CARRIED away by the swiftness of the changes which swept over the fruit and vegetable trade following the commercial manufacture of ice, some writers have inclined to the view that home-grown supplies of these perishables were destined to become negligible. It has been predicted that the cities would draw their supplies from distant sources where climate, soil, and labor combined to insure abundant and cheap products of good quality. It has seemed a reasonable assumption that the farmer on high-priced land near a large city, who must hire labor in competition with protected industry, could not survive the competition of the specialized trucking and orchard areas of the distant South and West.

Modern marketing has indeed made it possible for almost any region to specialize in the crops to which it is best adapted almost regardless of distance from market, but that is only half the story.

The carload and trainload movement of perishables are the spectacular and measurable features of the business. The team and motor truck are less conspicuous and we have no means of measuring or recording what they are doing.

We see perishables from a distance so constantly on our markets that we thoughtlessly assume that they have displaced the home-grown. We tend to forget how short the

season for many of these crops would be if we had only the home-grown supply. Therefore, we hardly notice the fact that many distant products almost disappear from many of our markets for the few weeks when the surrounding country is at the height of its season.

It is important to know the reasons for this condition and to judge dispassionately as to whether they are permanent or transient. Some of these reasons have been suggested in preceding chapters. They are here brought together as bases upon which to forecast the future trend of production.

THE HIGH PRICE LEVEL

It is impossible for vegetables grown on the Mexican border or west of the Missouri River to be sold in Atlantic Coast markets at prices which the local grower would have considered cheap only a few years ago. The cost of harvest, packages, packing, freight, and only one selling charge combined, is such that the goods would not be considered cheap foods in the East if no part of the cost of production were returned to the grower. Usually the grower does get something for his labor. If he is on irrigated land he must also get something for his water and something for the use of land now generally higher in price than that used for truck growing in the East.

Bunched vegetables, spinach, lettuce, celery, tomatoes, peppers, green beans, and other similar products are on the large markets of the Great Lakes and North Atlantic states in large quantities and for long periods before there is any local production. Prices must average above harvesting, packaging, transportation, and selling costs combined. If they do, the consumer is educated through this long period to a price at which the local grower can well afford to sell when his own season is on. In short, the consumer is accustomed to a price which includes several items of cost which are relatively negligible in the bookkeeping of the nearby producer.

When the home-grown product is ready it may be possible to raise the price a little above that which has prevailed on goods from a distance or it may be necessary to take a little less, depending upon the quality and abundance of the local crop, but in the main a price level has been fixed for the product in the minds of the consumer and in very many cases it is a price decidedly higher than the producer got for any considerable part of his crop in the days when distant competition was unknown. Exact comparisons are impossible because we have no price records prior to 1916 which are at all comparable with those since that year. The general price level for all commodities is much higher than in the latter part of the last century. Yet the fact remains that many local products do sell for less during their season than these same products shipped from a distance have been bringing. This can mean nothing else than that local growers can and do find a profit in producing these goods at prices below those established on the distant supply. They grow enough at these prices to keep the price down. This is the best proof that they are not compelled to have as high a price as the western article must bring in their market if the western industry is to live.

Instead of injuring the local grower the distant shipper whose season is earlier helps him by developing a demand for the goods at a high price. This favorable market situation the nearby grower inherits when his own crop is ready to move. He can maintain it if the quality of his product compares favorably with that which has preceded it and if he does not overstock the market.

MARKETING COSTS—FREIGHT

The price which nearby goods bring in the local market is much more nearly net to the grower than is the price which distant goods bring in the same market. Freight is the first large item of difference. It costs the shipper of bunched vegetables in south Texas about $33 a ton in

freight plus icing at $105 a car, to deliver his products to an Atlantic Coast market. The nearby grower delivers a ton to his market in a light truck, taking less than three hours for the trip. If costs of production were equal, freight charges alone would effectually preclude any competition from the Far West or Southwest with any eastern trucking section during its own natural season.

The freight rate on celery from the vicinity of Los Angeles, California, to Boston is $1.75 per 100 lbs., equivalent to about 17 cents per dozen plants of large size, icing extra. As good celery is grown near Boston as anywhere else in the county. The handicap of a distant competitor during the Boston home-grown season is obvious, and the celery growers in and near her suburbs have continued in business until their lands actually went into use as suburban homes. These celery lands have not gone into nonproducing, speculative holdings. Competition, even from Kalamazoo, Michigan, with a freight rate of 64½ cents per 100 lbs, plus icing, to Boston did not put them out of business.

Notwithstanding recent and present agitation for a reduction of freight rates, there appears no good reason to believe that highly perishable crops will be given transcontinental transportation more cheaply in the future than now. Probably such a change could come only with a marked general reduction of price levels and of wages. If the railroads are taken over by the Government, it is conceivable that the people may insist on a lower rate on such foodstuffs, the deficits to be paid out of taxes. At this time such a prospect does not appear imminent.

MARKETING COSTS—PACKAGES

While the distant shipper must use packages which will carry the product safely and which will be attractive and convenient in the hands of the carload receiver, jobber, and retailer, the producer for the home market often uses no packages. Wagons and trucks stacked full of bunched

vegetables, to be sold by the dozen or hundred bunches, are common sights in many city markets.

Local growers deliver quantities of goods to commission houses in open packages which are exchanged for others of like capacity. Nearly all local products are sold on the Boston market in the characteristic open bushel box which actually holds somewhat more than a bushel.

Enormous quantities of New Jersey products are delivered in nearby cities in ⅝ bushel baskets which are returned or exchanged.

There does not appear to be the same prejudice against a reused container when delivered from the grower's vehicle which attaches to the same reused container when it appears in cars loaded in distant regions. One reason is evident. The car loaded in Texas may first be bought by a dealer on the ground. It may then be sold to a receiver who will either job it in his market or divert it. Eventually it sells to jobbers who again pass it on to retailers still in the original packages. If old packages are used, they will be in competition with new packages at every sale. Prices being equal, the new packages will attract the buyer, for he knows that he has other eyes to please.

The second-hand package used by the local grower is sold directly to the retailer either by the grower himself or by the commission house to which he delivers it. If sold to a jobber it is immediately passed on to retailers as local produce. With the exception of berries and small fruits the retailer does not sell the package to the consumer. He empties it on his bench, pours it into a bin, or retails from it by the pound, piece, or dozen. He wants full count or measure of fresh goods rather than strictly new packages. Such prejudice as does exist in favor of the new closed package from a distance is based largely on the better standardization which the retailer has learned to expect in the contents.

The 576 bushel baskets which constitute an average carload of bunched carrots or beets from Texas cost the shipper

in 1926 about $96, a cost which the local grower near any Atlantic seaboard city largely escapes.

Summer cabbage grown near eastern cities is largely delivered in bulk from wagon or truck. If barrelled, the containers are open and returnable or exchangeable. The Florida, Carolina, and Alabama cabbage which it replaces has been crated at a cost to the grower of about $75 a car.

MARKETING COSTS—HANDLING

It is easy to indulge in false reasoning when we approach the question of handling costs, margins, and net returns. Market prices of perishables are determined by cost of production only in the most general way and as an average over long periods. It is not true that the price of any one season's crop is ever so determined. In the long run the grower will quit if a crop sells persistently for less than it costs him to raise it, yet he never knows in any one season whether he will get back what the crop has cost.

Contrary to popular belief, the distant producer does not necessarily receive less because his goods pass through several hands on their way to the consumer. He can ship directly on consignment to the same commission house which sells for the local grower. Except for drayage he would then incur no expense at the terminal market not borne by the large-scale local producer.

For reasons which are largely psychological, supplemented by his inability to wait for returns, the distant grower, especially of vegetables, does incur other selling or handling expenses which reduce his net return. He often sells to a local shipper who in turn is afraid to consign or unable to finance consigned shipments. The car is therefore sold f.o.b. on what is in fact little more than a buyer's option. If the market declines materially before the car arrives, the f.o.b. price is not in practice likely to be realized. The f.o.b. sale is often made through a broker after the car has rolled. The brokerage must be paid even out of the reduced price which

may eventually be realized in case of rejection and adjustment.

The broker's sale is usually to a carload receiver who, in a large market, has substantially the same outlets as has the commission house to which the local grower delivers direct and to which the distant grower could have shipped.

Obviously the charges, profits, and risks between the buyer at shipping point and the jobber who buys from the carload receiver, must all be reflected in the price realized by the distant producer. They constitute a group of handling costs which the nearby grower does not incur.

Two things may happen to reduce this present advantage of the local grower. First, the distant producer may become better able to finance his own marketing and may carry his risks for less than they now cost him when carried by proxy. Second, a check or supervision may be provided for the commission business which will satisfy him and make him willing to ship more largely on consignment.

The grower who is in personal touch with his market, who knows the commission man who handles his goods, who sees his products on sale beside others and compares quality and prices, has two important advantages over the man at a distance. First, he soon learns whether his agent is a good salesman and is actually getting what the goods should bring. Second, he can know beyond a reasonable doubt whether he is getting an honest return. With his mind thus at rest he is saved the expenses and losses which his distant competitor incurs because of uncertainty and suspicion on these specific points. It is unlikely that this advantage of the local grower can ever be wholly overcome. He is never likely to receive less than the jobbing price, less an agreed-upon commission, usually about 10%.

LESS LOSS IN THE FIELD

Among the new hazards which came with long-distance shipment of fruit and truck crops we noted the greater

danger of field losses from disease, insects, bad weather, and consequent overripeness or poor carrying quality. The common use of motor vehicles for marketing truck and fruit in the East has decreased the danger of some of these losses. The local producer who has been prevented by rains from gathering certain vegetables today can rush three or four loads into market tomorrow in the time formerly needed to deliver one. The speed with which he can gather his produce is now his limiting factor. The motor truck is equally advantageous whenever field troubles of any kind make quick disposition of the crop desirable. General as is the use of motors in getting perishables into refrigerated cars in the far South and West, they have not helped simplify the problem to the extent that they have for the man who delivers directly to the market in which the goods are to be used.

Crops which have suffered injuries which might ruin them for markets several days away may be salvaged by the grower whose market is within an hour's run from his field.

LESS LOSS FROM CULLING

The local grower can afford to market sizes and qualities which his distant competitor cannot. This means that a larger percentage of the total product of an eastern truck farm can be sold than of a western. For carload shipment the same investment in harvesting, sorting, packing, packages, and freight must be made for a shipment of small sizes as of large. Frequently this leaves nothing for the grower. The advantages already cited enable the nearby truck grower to market these sizes, strictly fresh, at a considerable margin over harvesting and selling costs. The small sizes, therefore, add to his income per acre, although the crop might not be profitable if they were the only sizes grown.

The grower for the home market also sells much which is a total loss to the distant grower because of blemishes or grade defects. The same reasons apply which enable him

to sell smaller sizes. The smaller costs and shorter time between him and the consumer make it possible to sell these cheaper products at something more than handling and marketing costs.

Nearby products are so often sold loose in bulk or in open packages that inspection is easy. Jobbers and retailers can empty a box or basket and see just what they are getting. Close grading is not yet the rule, and the trade does not seem to expect it. Broadly speaking, home-grown perishables are still sold more nearly field run than is possible with the distant product. This may be a questionable advantage and one which will partially disappear if the pressure of perishable foodstuffs on the market continues to increase. Up to the present, however, it appears to be a real advantage, saving much labor which the distant shipper must invest in sorting and sizing before packing.

In grading many fruits the distant shipper must treat as culls those specimens which are almost at their best for immediate use. The peach which will be good to eat out of hand tomorrow is a cull in California, Texas, or even Georgia. It is the very best peach which can be offered to the huckster who wants to peddle it today or tomorrow. Eastern packing houses and large peach growers near populous centers find the peddler ready to take their "ripes" daily at as good prices as they can expect from their best carload shipments.

Early apples are almost as perishable as peaches and show quickly the effects of bruising. They improve in size and quality up to the stage of full ripeness. The nearer to market they can be produced, the larger the size and the better the quality which can be offered. Bruises which would preclude shipment to markets two days distant or beyond, do not make the apple unsalable for tomorrow in the home market.

The farmer in the Gulf states or even further north, who ships early potatoes directly from the field to market in hot weather, knows that every mechanical injury received

by the potatoes in digging is a potential rot. He must discard a great many which are salable with little loss by a grower in the same latitude who can deliver them on the market within 24 hours from the field.

The net result of the whole situation is that the producer for the home market comes much nearer selling all that he grows than can the grower of carload quantities for distant markets.

HIGH-QUALITY PRODUCTS

By leading the way in standardization and by producing fruits of superior finish under unusual climatic conditions, the Far West has given many the impression that home-grown products are necessarily inferior. Many new vegetable districts which have put showy products on the market at a new season have created the same impression. There are a few instances in which this is true, but it is easy to lose the true perspective.

At present the largest and hardest head lettuce grown in the country is produced during the winter months in the Imperial Valley in southern California. There is no head lettuce grown near any eastern market which compares with it. But the Imperial Valley cannot produce lettuce of any kind at a season when it would compete with any outdoor lettuce grown north of Charleston, South Carolina. The telling competition of the eastern lettuce grower now comes from the high-altitude lettuce districts of the Rocky Mountain states, where midsummer temperatures may be expected to remain below 90 degrees.

These districts are new and have already scored some failures. No one knows how many years in 10 a paying crop of head lettuce can be grown in any one of them. If they can grow good lettuce 3 years in 4 they may make all head lettuce growing in the East unprofitable. If so it will be the first case in which a home-grown perishable has been entirely crowded out of the market in its own season by the superiority of a distant product.

Reasons have been given why the home-grown product of nearly every sort enjoys a season within which it is the best that the city consumer can get. The freshness of the home-grown is sometimes an important item, but as we have hinted this freshness is accompanied by a better degree of maturity which often is vastly more important.

Radishes, peas, green beans, sweet corn, and tomatoes from a distance are among the products which practically disappear from most of our large city markets during the season of the local crop. Local strawberries monopolize many of the large markets in turn as the season moves northward. In fact, wherever small fruits are at all successful they are likely to hold their nearby markets during their season. Bunched vegetables also as a class displace all similar goods from distant sources.

One of two reasons will account for the situation in nearly every case. Either the crop can be grown so cheaply that freight charges preclude successful competition from a distance or the native produce is of better quality than any that can be brought in to compete with it.

The quantity of bunched vegetables which can be grown on an acre is so large that the principal charge against the local crop is for labor. With the same investment in labor the local gardener can put a more attractive product on the market than can his distant rival. We have noted many of the expenses of the distant shipper which the local product does not bear. The net result is that the far-away district in the same latitude, and with a long hot-weather haul intervening, cannot compete. Local cabbages and other bulky products have a similar advantage.

Several local eastern products, however, are superior in quality to any which can come from a distance at the same season. Sweet corn, peas, lima beans, tomatoes, and radishes are conspicuous among vegetables. Refrigeration and transportation are not yet so perfected as to bring any of these products over journeys of several days in midsummer and deliver them to the consumer in as attractive condition

as the home-grown. The latter are preferred simply because they are better.

The local grower also has an advantage in the choice of varieties. The remote district must select a variety, whether of vegetable or fruit, which will "stand up" under several days of shipment and later handling. The local gardener can pay more attention to high table quality and less to qualities of resistance. This is an advantage which we may expect to see pressed more vigorously by the eastern gardener and orchardist in years to come.

Strawberries and other small fruits seem to offer an inviting opportunity to supply the home market with seasonable products more luscious than will ever be obtainable from a distance. With literally scores of strawberry varieties of excellent quality, only two figure largely in carload shipments. These are grown because they are "good carriers." Many of the very best must be grown near the point of consumption or not at all.

Many of our best flavored varieties of peaches have almost disappeared from the market. They were too soft to stand long journeys with many handlings. A little organization and salesmanship among eastern growers should open direct channels to the best hotel and other select trade.

ROADSIDE MARKETS

The automobile is bringing the grower and consumer nearer together in several ways. Probably more city consumers do some direct marketing since so many own cars than in the days when the market basket must be carried home on the street car. Certain it is that the automobile has brought the roadside market into existence.

This institution is too new to be confidently appraised. It is usually a seasonal outlet and does not enjoy a patronage during the first half of the week beginning Monday, at all comparable to that of the last half. It has many drawbacks and limitations as a method of disposing of

crops. But when all its deficiencies are granted, the fact remains that it is giving some consumers their first acquaintance with local products at their best. They are learning what tree-ripened peaches and vine-ripened cantaloupes are like. They are getting sweet corn the day it is picked, and at the best stands they are learning the superiority of many local products in their season.

Wholly unregulated and unstandardized, the roadside market may prove to have been a passing phase of our adjustment to good roads and general motor transportation. If it shall disappear as quickly as it has come it will at least have acquainted some city consumers with the merits of nearby products at their best. This knowledge will have its effect upon the future course of local production.

AN ILLUSTRATION

A specific case serves to show how an eastern orchardist can take advantage of his location to save expenses which his distant rival cannot escape and to utilize what to the western shipper would be lost fruit. He also gets the advantages which go with a trade-mark or brand and has the services of expert and experienced salesmanship.

This orchard is located on a trolley line 12 miles from a city of one-third million. There are of course public cold storage facilities in the city. Such apples as the owner wishes to store are taken direct from the packing house in the orchard by truck or trolley freight to the city storage.

A single commission merchant, long and well known to the owner, handles all the fruit. It is in storage at his order. He is the judge as to the rate at which it shall be taken out and of the order in which varieties shall be sold.

Every package bears the owner's brand and farm name. The quantity is sufficient to attract the attention of consumers or dealers wanting a steady supply of uniform, high class apples. Distribution of his product among several cities would dissipate his reputation. The volume is not

large enough to make the orchard well known in more than one large city.

In years when the national supply is not large, the crop is carefully graded and all No. 1 stock is stored. Windfalls go to market daily for immediate sale. Very little fruit is lost.

But in years of full production, when prices for the whole season are bound to be low, a wholly different plan is adopted. The object is to keep down expenses on a crop predestined to be relatively cheap. Under these conditions no apples are put in cold storage. The cost of barrels, the expense of packing, and the charges for storage are saved. Very little fruit is picked. The apples are allowed to become full ripe on the trees and drop as they will. The trees are low headed and the ground may be kept soft by late harrowing. Women and children pick up the fruit, getting over the orchard every few days. Perhaps only one grade will be made—orchard run with culls out.

These apples are hauled in open returnable barrels. They go to the same selling house. They are sold daily for immediate retailing. Of course, they are all windfalls and in the Far West all would technically and legally be culls. In their home market they are big, fresh, ripe, highly colored apples, the very best of their variety to be had at that season. No hand-picked fruit from a distance can compete with them.

This is high-quality fruit from a modern orchard, given modern scientific care up to picking time. Then the whole program changes and a system of marketing followed which shows at least some profit in years when the great commercial apple districts are all in distress.

This plan insures the greatest possible yield, since almost every apple attains the largest size possible for the crop and the season. It insures the highest development of color in each variety. It puts winter varieties on the market, fairly ripe, before commercially handled stock of those varieties is ready to eat. It enables the farm to put most of

its energy into moving the crop instead of into picking and packing. It tends to monopolize the local market until the crop is disposed of.

In short, when prices are low, this grower, using one outlet only and having that market close at hand, can resort to a number of last-minute economies in the cost of handling which are impossible to the man in a commercial district selling through agencies of general distribution.

These advantages insure his continuance in business even though the orchard industry of the country becomes unprofitable. He can survive when others perish. In fruit and vegetable marketing the annihilation of distance is far from complete. Adaptability to environment and quick adjustment to changing conditions still have their reward and the grower for a nearby market has a better opportunity than the distant commercial grower to prove and to profit by his capacity to meet these tests.

VOLUME OF LOCAL SUPPLY

While no one knows the exact quantity of home-grown supplies delivered on any of our large markets, there are estimates which are based upon constant observation and comparison. Mr. E. R. Biddle, in charge of the Federal Market News Office in Philadelphia, had this to say to a meeting of local producers in May, 1926.

> There is absolutely no way of knowing the vast volume of fruits and vegetables moving into our large markets from the nearby truck farms. I would say that about one-quarter of the fresh food supplies of Philadelphia comes from the farms that are comparatively nearby. The Massachusetts Department of Agriculture has recently issued a very complete summary of the sources of the food supply in Boston and has estimated that approximately 25% of the supply comes from the nearby points. Practically all of the large markets have their nearby or home-grown supply of fruits and vegetables during part of the year.
>
> During 1924 there were 42,259 carloads of the various fruits and vegetables unloaded in Philadelphia. There were 59 differ-

ent commodities in this total and they came from 36 different states and from some 9 or 10 foreign countries. Besides this there are from 8,000 to 10,000 cars of produce arriving in l.c.l. shipments, and the equivalent to approximately 20,000 cars of homegrowns are hauled to market. This is a total of approximately 70,000 to 75,000 cars handled during the year.

The Delaware Bureau of Markets, with the aid of the State Highway Department, took a count of the produce moving out of the state by auto truck. The figures show an equivalent to about 850 carloads, about half of which were strawberries. This no doubt increases to some extent the amount of this stock which comes to Philadelphia. And, I am told that because they can keep in close touch with the market and deliver their produce to the commission merchant within six hours, many farmers are planting more and more truck crops for the local market. Many of the New Jersey growers who a few years ago hauled only to Philadelphia are now carting to the markets in the northern part of the state.

So it appears that the wider range and quick movement of the motor truck is stimulating a rapid increase of planting for nearby markets in spite of the unprecedented competition from distant areas.

FORECAST

We conclude from the picture of the situation briefly sketched in this chapter that the man who is located close to a fairly large eastern market has certain fundamental advantages which will make it possible for him to remain a market gardener or an orchardist indefinitely.

Certain elements of cost are permanently in his favor, notably transportation costs.

Certain economies are practicable for him which are impossible even a few hundred miles away.

Individual initiative in developing special demands for special products is profitable for the man who has his market at his door.

When the cost of living and the wage scale are such as to make it necessary for the average consumer to put a larger

proportion of his total income into food than he is now doing, the nearby producer will find his market much less hurt than will the distant grower. Under such conditions the consumer will use canned goods instead of expensive fresh goods which are out of season and will use home-grown products even more freely than now when their season arrives.

Commission merchants who give their nearby patrons the benefit of able and honest service should have no fear of losing that very desirable patronage.

The motor truck widens the area of home production around every city, thus permitting more selection of location and more intelligent and profitable specialization than was formerly possible. The best adapted lands within 50 miles or more of any city can now become specialized truck or fruit districts for the home market. This is at least three times the radius of practicable local marketing with the team and wagon of 25 years ago.

Distant producing areas are likely to ship to such markets as New York and Chicago even to some extent during the season of local production. If local supplies were sufficient in volume it would be difficult to assemble and distribute them daily to several million people in a single metropolis. But the presence of carload shipments will not prevent the local grower from realizing the advantages which are naturally and inevitably his. There will always be a large place and a lively demand for the home-grown product, even in such centers, unless local growers forfeit their rights by utter failure to adapt themselves to changing conditions of distribution and demand.

XXV

THE PROBLEM OF SURPLUSES

Reluctance to admit overproduction. Reasons. Trader's view. Consumer's view. Definition. Why do we overproduce? Industry under forty years old. New country. Migratory labor. The urge to develop. The fruit and vegetable "rushes." Local need of haste. Lowering water tables. Diversification in the South. Overproduction of fruit. Relief measures. Advertising campaigns. Defeat and survival. Overproduction of specialties. Systematic crop destruction. Limiting the grape movement. Destroying a peach surplus. More for a part than for the whole. The long-time view.

At the risk of some repetition, this chapter is designed to present the question of surplus production in the fruit and vegetable industries. Overexploited areas, market gluts, violent swings from one extreme of production to the other, have been touched upon in passing, and the psychological effects which they produce have been analyzed at some length.

WHAT IS OVERPRODUCTION?

In some parts of the country, and among certain groups of hopeful citizens, the word "overproduction" is taboo. "There is no such thing," they protest. "It is a plain case of underconsumption." Then the blame is passed to the distributing trade or to the canner or processor, or to insufficient tariff protection from products which are real or imaginary competitors.

The minds of these men refuse to accept the fact of overproduction for one of three simple reasons: (1) They are specializing on the production of one product and cannot or will not change; (2) they have heavy investments in developed lands devoted to the product; or (3) they are

interested in the development of more land which is adapted to the product.

In the first case mental inertia may be to blame. In the other cases the basic interest is in land values or profits to be made by bringing new acres into cultivation; or, by irrigation, converting deserts or dry farming fields into gardens and orchards.

All these groups aggravate the difficulties of prompt and necessary adjustment and make the marketing situation needlessly bad.

The trader recognizes overproduction when such quantities of produce are shipped to market on open consignment for sale on commission that merchants who have invested in the goods at seemingly low prices are nevertheless forced to sell at a loss and when the supplies are everywhere so heavy that no one can put any enthusiasm into the effort to move them.

The consumer never recognizes an overproduction because there is always a price asked for all that is offered him. He recognizes only high prices and fair prices. If anything spoils unsold in the market it is wicked waste. If it remains unshipped from field or orchard it is criminal conspiracy against him, no matter if it will not bring back the cost of packages and freight. Evidently we shall have difficulty in securing an agreement on any definition of overproduction. However, we venture the following:

An overproduction of a fruit or vegetable has occurred when the amount offered for sale cannot be disposed of by the existing agencies of distribution at prices which will enable the intelligent producer who is operating on well-selected land to continue permanently in the business.

Right or wrong, that is the situation which we have in mind as we proceed with this discussion.

A shrinkage in land values may bring the investment down to a point where the same yields and the same prices will afford a living to producers, but this usually means the bankruptcy of one set of owners and the passing of their

properties to others. This process is going on rapidly in some parts of the Far West. Immense acreages of grapes in California went into the hands of the banks in 1925, 1926 and 1927. They were lost by men who bought or planted them in the days of the high prices at the close of the war and when the enormous eastern demand for juice grapes appeared. They are now going into the hands of men whose investment in them is less, and, usually, whose standards of living are lower. This process must go much further and competition must actually force the abandonment of vineyards now marginal, before overproduction, as we have defined it, will be a condition of the past for the grower of either table or raisin grapes.

WHY DO WE OVERPRODUCE?

Since the creation of a surplus leads to such inevitable and swift disaster, why do we do it? A complete answer involves the discussion of many factors in a complex situation, but perhaps a single brief statement will suggest much that is basic in our trouble: We are still a new country. The destructive avalanches of fruits and vegetables which have overwhelmed our markets in recent years have almost invariably been produced in regions where these crops were relatively new. We cannot find a case in which the increased intensity of production in a long-standing source of supply has wrecked the industry and compelled disastrous reorganization. Production in old districts has often become unprofitable, but the great volume of new supply had come in from elsewhere.

It is important to remember that the country was pioneered for stock raising and grain farming, for mining and for lumbering, long before it was possible to test it out on any large scale for fruits and vegetables. Wherever a flat boat could navigate a shallow stream, live stock and grain, or their products, could find an outlet from the earliest days. The railroads carried fuel out into prairie and plain and

made their habitation possible. The same railroads took back grain and live stock.

Not until the commercial development of artificial ice and mechanical refrigeration did either the railroads, the waterways, or the ocean itself, figure largely in the movement of fresh fruits and vegetables to market. This means that the entire United States except in the immediate vicinity of our large cities, *is less than 40 years old* in the commercial production of fruits and vegetables for fresh shipment.

All the commercial exploitation of even the older Gulf states as sources of these products has occurred within that period. The horticultural and pomological pioneering of the West and Southwest was going on simultaneously. Population was pouring into the country. Markets seemed capable of indefinite expansion. Labor flowed easily into the new regions of seasonal employment and the mildness of the climate in many of the new centers of production has tended to keep much of this labor fluid and migratory. The coming of good roads and Ford automobiles swelled the ranks of the transients still further.

Without this migratory labor, more fluid and more plentiful than the country ever before saw, the ruinous overproduction of some products would hardly have been possible. If the development of each new district had been limited by the labor supply actually resident therein, the agricultural Far West would have made fewer fortunes and would have suffered fewer bankruptcies. Incidentally, the East would not yet be eating many Pacific Coast perishables all the year round and as a matter of course.

THE URGE TO DEVELOP

The thing which has happened was inevitable. Since the days of Jamestown and Plymouth the transplanted European and his descendants have been exploiters of the stores of natural resources which were everywhere within reach. It is only the present generation which has given a

thought to conservation. Poverty, except as the result of illness or exceptional misfortune, has been the object of contempt among us, for why should not a man own his own home and make his own living when he could have his choice of forest or prairie for little more than the expenditure of the necessary energy to move in and possess them. Broadly speaking, every man has had his choice between working for other men and helping himself out of nature's storehouse.

And always there was the land. To fail to exploit it was to confess lack of vision or lack of energy.

And always the first shipments of fruits and vegetables out of new territory have brought back returns at a rate per acre which made the grower see himself as the modern Midas with the golden touch.

How could anyone with similar advantages fail to grab at some of this easy money? Inevitably the promoter would promote. The means of publicity were already nation-wide when the new America, the America of potential orchards and gardens, displaced the America of boundless grainfields and pastures and forests primeval; yes, even displaced the Great American Desert with a series of great oases, each a garden on a scale the world had never seen.

The glamour and the romance of the California gold rush have been woven into the fabric of the country's history, largely because of the hardships of the pioneers. It is admitted that many brought out less than they took in. But that is an incident, a matter of hard luck, it does not affect the story. Its very tragedies have become the fount of folklore and of song. But no historian has recorded even the outlines of the Georgia Peach Rush, the Texas Onion Rush, the Northwestern Apple Rush, the California Prune Rush, the Grape Rush, the Asparagus Rush, the Canning Cling Peach Rush, the Lettuce Rush, the Mexican Tomato Rush, or any other of the dozens of lesser rushes, each of which has left its own trail of bleaching financial skeletons to sober the thought of the student of our unparalleled "development."

Each of these high-pressure industries has made its fortunes for those who rode up on the crest of the tide either as large-scale producers or as distributors. Each has brought disaster to many who were caught in the undertow of receding price waves. For each has arrived in turn at the point of overproduction as we have defined it.

The difficulty has been compounded in some cases by competitive development in widely separated areas. The older area has refused to believe that the newer district had permanent advantages. Sometimes it has been right, sometimes wrong. While the battle was being fought out, overproduction paralyzed one or both regions with unprofitable prices.

THE NEED OF HASTE

Circumstances sometimes seem to force the rapid development of land and the attempt to grow crops of the highest value per acre. Abundant water for irrigation has been found less than 100 feet below the surface of parched and dusty deserts. Sometimes cheap electric current can be conveyed to them from mountain water powers. Most of these districts show a steadily lowering water table as the surface development is intensified.

Federal Farm Loan banks and other prudent investors refuse to lend money on such farms. The owners cannot finance such improvements as a permanent, home-making agriculture demands. Such credit as is extended them is based upon their ability to repay out of the next crop. Everything demands that the farmer make a quick turnover. He is exploiting both land and water. He deepens his well every few years. He cannot hoard water, for all his neighbors draw from the common supply. Why should he economize water if a crop which requires large quantities will pay more per acre per year than one which takes less?

Some of these areas are old lake beds or the deltas of long-dry rivers, incredibly fertile under irrigation. They are free from all the weeds of the older farm lands. The

pumped water brings no seeds. The stage is set for the production of vegetables with an unprecedentedly small labor cost up to the harvest. Migratory labor takes care of the harvest.

Never were there farmers with a greater need to "make hay while the sun shines," and while some of them are making alfalfa hay at the rate of six cuttings per year, others are growing vegetables, vegetables, vegetables, as fast as crop can succeed crop with pumps working almost day and night. Here we have enormous yields with low labor costs. While they last, these areas tend to create a condition of overproduction for everybody with whom they compete. No one can blame them, for they have no promise of permanence and are forced to exploit at the highest possible speed. They constitute one of the best proofs that *we are still a new country*. When a century shall have passed, doubtless their place shall know them no more forever.

THE NEED TO DIVERSIFY

Some of the plunges into truck crops have occurred in the Cotton Belt and on lands long under cultivation. A year or two of low cotton prices emphasizes the need of some other cash crop. A relatively small area diverted from cotton to truck crops will not make a perceptible change in the total supply of cotton, but may smash the market for the principal truck crops planted on these new acres.

It is impossible to coordinate and limit the substitution of truck crops for field crops in any large area. No one can tell in advance how far-reaching such a movement will be in any one year. Neither can the yields per acre be forecast with any confidence up to the very time of harvest. The hazards and uncertainties are far greater than on the irrigated projects. Even the actual results of one year give little assurance concerning the next.

Yet the need to diversify has forced many districts in all parts of the country to try out these annual perishables

on a commercial scale. Some will remain on the vegetable map. Some will as surely disappear. While the experimenting goes on, overproduction will be periodic and inevitable. *We are still a new country.*

Eventually capital will learn where it is safe to make large investments in truck crops, but as long as the greater part of our car lot production is financed by distributors and not by bankers, repeated risks will be taken and overproduction invited.

OVERPRODUCTION OF FRUIT

Turning now from the vegetable and vine fruits which are annually planted, to the products of orchards and vineyards, we find in the study of the surplus a reemphasis of much which was said in Chapter VI. In the first case the surplus may come suddenly in overwhelming volume in a single year. In the case of tree fruits it rises slowly but like a resistless tide.

When in a year of average yields the markets fail to absorb the fruit at a living price, there is just one conclusion—there are too many trees or vines of that fruit, and trees and vines are a long-time investment and will not be uprooted because of one disastrous year. Such disaster will not be repeated each year. Most fruit trees have their off years, and late frosts may make off years for whole districts. Due to these irregularities of production a surplus which is always impending and potential because of the excessive number of trees may not appear in actual aggregate yields more than once in two or three years during the early period of its existence.

All this time plantings will go on if the production is largely in new districts as it usually is. We find that in almost every case a serious overproduction of a tree fruit finds us with a lot of nonbearing acreage which is bound to make matters worse for years to come. This situation now confronts many orchardists and nearly all vineyardists. All

these overplantings are on lands on which fruit trees and vines have never grown before. *We are still a new country.*

RELIEF MEASURES

Naturally the orchardist looks for remedies for his situation. He cannot quit or change as does the vegetable grower. To pull out his orchard is like tearing down his barn when he has not the means to build a greater. Taking out a part of his trees will not solve the problem. A unit of a certain size is essential to efficient and economical production. Reducing his tree population is useless as a means of reducing a national surplus unless the movement is general, as it has never yet been.

Again naturally, the orchardist turns from his producing plant to his outlet. The trouble is in the distributing system or lies in a failure to educate the consumer or to exploit foreign markets or to develop by-product plants. When these defects are remedied and facilities provided, all will be well again. Thus reasons the grower. Then follow demands for stricter grading, which when accomplished is a real help. It is a double help because the fruit culled out seldom gets to market in surplus years, so that total volume is reduced and the marketable part is good enough to stimulate consumption.

Advertising campaigns have been more discussed than actively prosecuted except as to citrous fruits and cranberries, as noted in Chapter XIX. Yet first and last no small sums have in the aggregate been spent in desperate efforts to bolster up a market which was sagging under a hopeless overload of good fruit.

At this stage the by-product plants are apt to come with or without the grower's financial aid. In Chapter VIII we have shown how elusive and ill-founded is the hope that factories will change the balance sheet of the orchardist so as to show a profit for the season simply by utilizing an otherwise unsalable cull pile.

DEATH AND SURVIVAL

Thus far such measure of relief as has come has been due to the working of natural forces. If it has not been a case of the survival of the fittest it is at least gradually resulting in the death of the least fit. In the Far West some reduction of orchard acreage has come about in certain districts because some owners have been obliged to neglect their trees while they made their livings by other means. In an irrigated country a year of neglect, without water or cultivation, may mean irreparable disaster.

In the older regions of diversified agriculture under rainfall, the neglected orchard may immediately cease to produce much salable fruit, but it will not die and can be brought back into the competition at any time within several years. Again the marketing processes are less expensive and crops even of poor quality may be salable in off years.

It seems likely, therefore, that the heaviest losses will be borne by the tree fruit men of the Far West while the period of overproduction is slowly passing. This is especially true of apples. There appears as yet no practicable way of coordinating the plantings of eastern and western orchardists. Each has his advantages, each his drawbacks. Inevitably they will fight it out. Modern fruit culture is possibly a newer art on the Atlantic than on the Pacific Coast. Great areas of cheap lands in the East now offer opportunity to grow orchards at a fraction of the cost of those in the West. No man can tell as yet what will be the general boundaries of the commercial apple regions in 1950. *We are still a new country.*

OVERPRODUCTION OF SPECIALTIES

In California particularly we have a number of tree fruit specialties. The great bulk of the commercial prune acreage is in this state. Practically all the fresh apricots

and most of the plums come from fairly well defined districts of this one state. Walnuts, almonds, and olives are state specialties. The California Bartlett pear has the market to itself for several weeks and is thus a local product. All our European varieties of grapes are grown in California save a few small plantings hardly beyond the experimental stage.

Several of these fruits have reached, or are facing in the immediate future, a condition of overproduction. The question of interest to all students of marketing is whether the surplus will be controlled or eliminated when the production is all in one state and the growers all within reach of each other. Can there be any voluntary and affirmative way of dealing with overproduction, or must the slow and natural processes take their course no matter how painful or destructive.

There is still much land in California awaiting development, and for some of it the water is waiting in the reservoirs and ditches. It is fruit land similar to that already planted. The question in the owner's mind is "what shall I plant?" The suggestion that he plant nothing is intolerable. Field crops will not pay interest on the investment necessary to bring some of this land under irrigation.

One of the first problems then, in the struggle with the surplus, is that of restraining the almost irresistible urge to plant more trees. The preachment of a generation is that it is a fruit country and that the earth's teeming millions are waiting and hungry for the fruits from these foothills and valleys. How can the planting be stopped? Never, as long as the crops are loaded on cars and hauled over the mountains.

As long as this is done, the grower has optical evidence that somebody wants his fruit. Reports of oversupplies in markets and red ink returns convince him only that reforms in distribution and more honesty in the trade are needed. When the fruit actually rots before his eyes, his eyes are opened to the truth and not till then.

Some prune growers left their crops on the ground in 1927 rather than hire labor to gather and dry them. Many who harvested their crops hardly realized enough to pay these final costs. In the face of mounting crops and lowering prices plantings have gone on up to 1927. But with prunes on the ground all winter in some orchards, he will be a hardy gambler who plants more prune trees in 1928.

SYSTEMATIC CROP DESTRUCTION

There have been two instances in California in 1927 in which a surplus was dealt with in vigorous and rather spectacular fashion. In neither case has the job been scientifically handled, but each is new and suggestive.

In 1925, California grapes, moving in unprecedented volume, broke the market in midseason, brought red ink returns, and the season finally ended with perhaps 8,000 to 12,000 carloads left unpicked on the vines. The 1926 crop cleaned up fairly well with low prices in midseason rising at the close, the crop being lighter than in 1925. But disaster was upon the industry, and all interests united to bring the grape growers together into a huge cooperative, not empowered to market any grower's crop, but to operate a clearing house to which all marketing agencies must belong if they would handle any grapes for any member. A large preponderance of all the tonnage was thus brought into the clearing house.

We shall not attempt to go deeply into the machinery and methods of this organization, which is still new and experimental, but we are concerned with its partial success in dealing with a surplus.

The grape crop of 1927 broke all records. All past experience warned that it could not all be sold at a price above handling costs. Opening with fair prices, shipments soon climbed to the point which had spelled disaster in 1925. Nearly 2,000 cars a day were going eastward. The clearing house manager urged a cessation of loadings over two

week-ends, with a daily hammering at all member shippers to reduce loadings and spread out the peak load of the season. Finally a concerted move for a shutdown of several days actually reduced loadings from 1,700 a day to about 600 a day for a four-day period.

The response of the eastern markets was instantaneous. Prices stiffened although everyone knew that California had an oversupply of grapes. Later shipments did not quite reach 2,000 cars a day. Prices ran low toward the end but hardly to the point of red ink returns. Nearly all grapes shipped brought back some money. Yet when the rains began (at a later date than usual) there remained uncut on the vines a quantity of grapes estimated to be the equivalent of 15,000 carloads. These were a total loss. They represent the overproduction, the unmarketable surplus, and the wonder is that they are hanging in the vineyards of California instead of rotting at the market end or bringing less than freight charges.

Never before have we seen a recognized surplus kept at home and not allowed to break the market. Meantime those thousands of acres of unpicked or partly picked vineyards give mute yet eloquent warning to every passer-by against the folly of further plantings. The men with marginal vineyards are daily reminded that their cases are hopeless. The lesson is striking home and may be heeded. A surplus left at home to preach its own sermon from thousands of hills and vales to every member of the community, this indeed is something new in our new country.

DESTROYING A PEACH SURPLUS

The various varieties of yellow clingstone peaches grown in California are produced exclusively for canning. Most of them will not stand shipment to the East, and the market for them for home canning is definitely limited. The crop has a long history of fairly uniform profit making for the growers. New plantings since 1920 have been enormous

and continuous. The consumption of canned peaches shows a percentage increase greater than that of any competing product. The peach pack has increased 700% while the pineapple pack has increased 85%.

But in 1926, with a total pack of some 13,000,000 cases of canned peaches, the canners found themselves overloaded. In spite of sharp price reductions they faced the crop of 1927 with a surplus or carry-over of some 2,500,000 cases. The crop on the trees meant another pack as large as or larger than that of 1926. Canners who had paid $40 a ton for the crop of 1926 talked of about $15 to $20 for that of 1927.

But growers had not planted their trees with any such prices in view. Their land values could not be sustained on any such basis. Many orchards would not return the operating costs of the year. From the grower's viewpoint the proposal was unthinkable. He could not see his future halfway safe with prices below $30 a ton. A deadlock developed. Representative groups of canners and growers remained in continuous conference, but to no purpose.

There are four principal varieties of the cling peach, with overlapping ripening periods which together make a fairly long canning season. The earliest of these is the Tuscan. While the deadlock continued, the Tuscans ripened and began to fall.

When about 30,000 tons of Tuscans were on the ground and past all use, an agreement was reached under which no No. 2 peaches were to be accepted in any delivery as a means of still further reducing the pack. In actual operation this reduced the pack by perhaps 40,000 tons more. As a result of this elimination of some 70,000 tons of usable fruit the pack for 1927 was kept down to about 10,800,000 cases. The surplus lies on the ground in all orchards for all to see. This pack, with the carry-over, gives the canners almost the same total as in 1926, but there is a normal increase in total demand to be anticipated. The sliding scale of prices, varying inversely with the size of the total pack,

did not prove to be altogether sound, for the final total price paid for the peaches in the pack of 10,800,000 cases was about $1,100,000 less than would have been paid had only 8,500,000 cases been canned. If approximately 50,000 tons more had been dropped, the smaller pack would have resulted. The saving of picking and hauling costs on these 50,000 tons would have brought the total increase of net returns to the growers up to about $1,450,000 above what they actually got.

The final price was $22.50 a ton, out of which growers paid the owners of Tuscans a pro rata share for the tons dropped in each orchard, as determined by estimating committees, less harvesting costs. The final result to the average grower was not far from $18 a ton for his fruit at the car door.

But the deliberate elimination and waste of some 70,000 tons, followed by absolute proof that the nondelivery of 50,000 tons more would have resulted in more cash in their pockets, has made growers think on new problems. Already plans are under discussion for disposing of this surplus in advance of the harvest whenever it appears in the future. Forecasts for 1928 to 1930 indicate a steadily increasing total crop. Distress is inevitable and marginal orchards must come out, for much of the younger planting is on lands where yields will be higher than in older districts. The industry faces the probable necessity of destroying or letting drop from 20% to 30% of its product in every full crop year of the near future. Even such elimination cannot be expected to keep prices where any but the best orchards can show a profit. It is hoped, however, that a price basis may be maintained which will keep the mass from bankruptcy while the necessary number of unfortunates are eliminated. These unfortunates may be either individuals or districts or both.

The point of interest is that some growers are grappling with the surplus as a thing to be handled and controlled at its source. Their efforts promise to lead to interesting de-

velopments. Possibly we are at the beginning of a new chapter in the evolution of the tree fruit industries.

THE LONG-TIME VIEW

Frantic advertising drives; "eat more" campaigns; organizing new middlemen under the guise of better distributing service for growers; berating the customs and practices of the market, all usually fail of any substantial results. Events have moved so fast in the fruit and vegetable industries within our generation that it has been almost impossible for a man acquainted with only one part of the country to acquire a long-time view of what is happening and likely to happen.

The uses to which land has been put have been dictated by the exigencies or the enthusiasms of the moment. The land has also been exploited as an expendable rather than as a permanent resource. We have as yet very few regions where we can be sure that our agriculture is on a permanent basis and can go on indefinitely as it is now going. Almost everywhere we are working under conditions some of which seem bound to change in the not distant future.

The auto truck is at once a help and a disturbing factor in a new situation. It is bringing into the competition of the fruit and vegetable trade every well-adapted acre east of the Mississippi River. The total of these districts, heretofore barred from consideration for lack of transportation, would make an empire. So far as the trade in perishables is concerned, it is like annexing a new half-continent just off the Jersey Coast. No one knows what it will mean in the perishable products trade 10 years hence, much less 50 years or 100 years. *We are still a new country.*

XXVI

EVOLUTION IN TRADE RELATIONSHIPS

Recognized need of changes. The chain store. Displacing jobbers. Trade sentiment divided. Accusations. Possible collective bargaining. The jobber's plight. The broker's dilemma. Two masters? The broker's legal status. His trade relationships. His outlets limited. What happens? Unfaithful agency. Double brokerage. Shippers' objections. Brokers' recourse. When is brokerage earned? Divergent opinions. Hear the broker himself. Code of ethics. Responsibility of agency not recognized. Relationships with auctions. Auction loans. Distributor not a free salesman. The shipper's view of trade relations. Changing relationships in the country. The cooperative and the distributor. Between distributors. Growers' losses. The dawn of coordinated competition. New ideas crystallizing. The grower's new vision. Six new rays of light. The beginning of a new story.

As the trade in perishables has increased in volume and complexity, relationships within the industry have undergone many and rapid changes. Many of these have been shown incidentally as we have discussed specific developments in merchandising these products.

Anyone who has attended the annual meetings and conventions of the larger trade organizations must be impressed with the importance of this question. It is evident that very few are pleased with present conditions. The most enlightened men in the industry are dissatisfied. Many are apprehensive. Everywhere we hear that the nature of the business is changing. Everywhere we learn that the prevailing customs of the last 10 years are too loose and unstandardized.

THE CHAIN STORE

A considerable readjustment of relationships is being forced by the growth of the chain store and the general tendency of these stores to handle more fruits and vege-

tables. To the consumer the chain store means that he can now get more for his money by paying cash and carrying the goods home. To the general carload shipper the chain store means that his old customers in the jobbing trade have much less business.

The chain store wants carloads and trainloads. It is not interested in the jobbers' sale of a fraction of a car. The jobber simply has no place in the scheme of trade relationships which the chain store introduces. Here is a retailer who wants larger quantities than any but the very largest dealers have been handling.

The traditions of the carload operator forbid him to sell directly to retailers. He must protect his jobbing trade. But these retailers come directly to the regions of heaviest production and compete with the carload shipper himself. If they can buy from the producers' organization for less than the operators ask, they do so. They are not dependent upon any of the old relationships and hold none of them in reverence. The operator not only sees his old customer, the jobber, displaced but he can see that his own services are not essential to this new and disturbing factor.

As this is written late in 1927, the shipping trade is divided in its attitude. Some sell nothing to the chain store buyers, standing firmly by the jobbers. Others say the chains are on a sound economic basis and are therefore irresistible. These operators are trying to serve the new customers well enough to win for themselves a place in the new scheme of things if the chain stores eventually dominate the trade in fruit and vegetables.

Meantime it is reliably estimated that before the end of 1926 the chain stores had taken over so much of the business in Chicago that the jobbing of fruits and vegetables had been reduced by at least one-third.

It is not necessary to present arguments for or against the chain stores. They are organized for profit. They make these profits by securing a large consumer patronage. They secure this patronage by offering goods of fairly uni-

form quality at attractive prices. They must give lower prices than their competitors who give credit and delivery service.

It follows that they represent the consumer—their only customer—in all their buying. They are accused of a ruthless attitude toward the producing districts. They have none of the established connections and permanent investments in the country which many dealers have made. So it is said that they have no stake in the community and care not whether they buy the products of freemen or serfs. Their one object in the country is to beat down the price. While the dealer is indifferent to the exact price level and thinks chiefly of his margin, the chain store wants the lowest possible price level always and continuously. It wants cheap goods to attract the largest possible cash retail trade.

POSSIBLE COLLECTIVE BARGAINING

On the other hand, some of these chains can take the entire product of a producers' cooperative association, dispensing with all other middlemen. The saving is not as large as this might be understood to imply because the chain must maintain salaried buyers in the field to replace the existing trade agencies which it does not use. Still the chain and the organized growers have dealt with each other in a few instances with apparent success, and if the chains are eventually to dominate the city end of the fruit and vegetable trade and displace a large percentage of the present country operators, we may have a new need for, and a new impetus to, producer cooperation.

It is interesting to forecast what some of the relationships of the future will be if the chain idea continues to grow. How will the presence of a few very large buyers, who must have a constant supply to pass on to the consumer, affect business in the shipping area? They will want then as now, large quantities of standardized goods. The individual grower can deal with them only at a great disadvantage

and they do not want his small quantity. A tremendous impetus to organization must result.

But will not the chains compete with the association and wean away its members as independent operators have always done? Hardly. It costs the chain too much to buy from the individual. They would play one group or section or state against another, which is fair enough, but they would buy from the group and would have nothing to gain from its dissolution.

From whatever angle the chain store is studied, it is a disturbing factor. The broker fears it almost as desperately as does the jobber. The national distributor must make it a principal or exclusive outlet in any one large city or let it entirely alone. He may sell to a chain and also sell similar goods through an auction in the same city, but broadly speaking he must choose between the chain and the jobber. Some sell wholly to jobbers in one market and wholly to chains in another.

THE JOBBER'S PLIGHT

Does the jobber, who for years has stood between the carload operator and the green grocer, now face extinction? Perhaps not, but as an independent operator buying for resale his tribe seems destined to decrease in numbers and even more in influence. Organized auctions compete with him for the fruit stand and pushcart trade in high-class products. Chain stores constantly decrease the number of his retailer patrons. Nearby products are jobbed by the commission men direct to independent retailers without his aid. The truck driver is taking many of his customers in outlying towns. The stars in their courses seem to be set against him.

Some will meet change with change. Already the wholesale grocers, threatened with extinction by the chain store no less than are the jobbers in perishables, have begun to serve independent grocers collectively. They have formed "chains" of independent, individually owned stores. The jobber of

perishables may do likewise, but the field will not support the many jobbers who have operated in the past.

THE BROKER'S DILEMMA

The position of the broker is difficult at best. He advertises himself as "The Connecting Link." He aims and claims to stand between the shipper and the buyer and to perform an essential service. To the shipper he says: "Let me represent you to the extent of finding a buyer for your shipment. You shall know the price and confirm the sale before it is consummated." To the buyer he says: "Tell me what you want and give me a chance to try to fill your orders. I can offer you today such and such cars at such and such prices. I have accounts in several shipping sections. I can get you what you want at the right prices." Does the broker attempt to serve two masters?

THE BROKER'S LEGAL STATUS

The broker is the shippers' agent. He has no legal right to dispose of any car otherwise than at the best price which he can get for his principal. He has no right, moral or legal, to help the buyer beat down the price. He has no right to take the buyer's part in any dispute or contention with the shipper beyond giving the shipper the exact facts as he knows them.

Just how far his legal responsibility extends must be determined by his contract or bargain with the shipper. The trade has a general understanding of what this responsibility is, but strange as it may seem there is no formal, standard contract duly executed between the average broker and a majority of his shippers. The broker calls them his shippers, but legally they are his employers.

An exchange of telegrams frequently constitutes the entire contract. The shipper then hopes for good service from the broker. When he thinks he is not getting it, he tries

another. In spite of the admitted frequency of cases in which brokers fail to perform their full legal duty to their principals, lawsuits by shippers against their brokers are almost unknown.

THE BROKER'S TRADE RELATIONSHIPS

Here, then, is the broker under legal and moral obligation to the shipper exclusively. But the broker lives on brokerages, and brokerages result from sales alone. Sales are made only to buyers. The buyer has the last word in every trade. If he is not satisfied, there is no purchase.

The average broker, in the last analysis of the case, makes his living through salesmanship. He can practice this art most successfully upon men whom he knows. He has a limited number of buyers in his natural trade territory. Beyond this circle many other brokers have closer contact with the buyers than he can hope to maintain.

The broker's income is dependent on the sales which he can make within this limited group. Most buyers are fixtures in their towns. If one of them is lost, the consuming power which he represents is subtracted from the sum total of the broker's outlets. Yet the broker has no legal obligation to the buyer except to tell him the truth.

But meantime shippers are like the sands upon the seashore for multitude. From every quarter they bombard the markets with carloads of perishables rolling sold and unsold, often chiefly unsold. Nearly every shipper, no matter how far away, is a potential source of business for the broker. To these shippers he is bound by an indefinite contract or by none at all. Is it strange that brokers too often regard these shippers as their own assets, instead of regarding themselves as the shippers' assets, employees and agents? If a buying customer is lost, the loss is to the broker well-nigh irreparable. If a shipper ceases to ship, or in the language of the trade "transfers his account," the broker can usually find another who will give him a trial.

WHAT HAPPENS

Perhaps we have gone far enough in this analysis of the broker's business to prepare us for the discovery that in many cases the shipper does not get what he pays for. Many brokers, especially in the smaller cities, could not make a living if they actually gave the shipper the service legally due from agent to principal. Many buyers are none too scrupulous. If prices have declined since the car was ordered or bought, the dealer may search diligently for some basis for a rejection. If he can find a shadow of an excuse for a claim for an allowance, or reduction in the agreed price, he expects the broker to help him convince the shipper that the claim should be allowed.

If the broker discharges his duty to his principal; if he insists upon acceptance of the car at invoice price; if he tells the buyer frankly that if he rejects, the shipper will be advised to sell the car for his account; if he indicates that he will have other witnesses examine the car and will be prepared to win the shippers' case in court; if he does these things, all of which his duty as an agent requires him to do, he will make no more sales to that buyer for an indefinite future. The effect upon his business is the same as though many thousands of people had moved out of town overnight. Some broker who is "more accommodating" will get that buyer's trade.

Argument that such trade relationships cannot be permanent would be superfluous. They exist because we are at a point in the evolution of the industry where the trade cannot afford to enforce its contracts through existing legal machinery. Moral pressure and the transfer of patronage from offenders are the chief mitigating forces now in evidence.

DOUBLE BROKERAGE

The broker's transactions are not all confined to those with shipper and buyer. Frequently he can sell a car

through another broker. It may be that the car has been rejected, and the broker who first sold it is anxious to make a resale. He will lose his brokerage if he fails. He finds a broker in another city can place it at a specific price. The second broker must have his usual brokerage. There is no reason why he should split with the first broker because he can find other cars for his customer on which his usual charge will be paid without question.

If the first broker has made an honest effort to sell and the best outlet he can find is through his fellow broker, it would seem that the shipper should pay two brokerages. But at this the shipper protests. He thinks it would be entirely too easy for brokers to hunt in couples, each throwing business to the other and making double brokerages the rule. So the broker dares not show two brokerages even when they appear legitimate. He may, however, secure a confirmation from the shipper of a sale at a price enough below that which his fellow broker is actually getting to give him his brokerage without its appearing in any documents which reach the shipper. Evidently this is another trade relationship which needs standardizing.

WHEN IS BROKERAGE EARNED?

Strange as it may seem, there is as yet no agreement among brokers themselves as to when a brokerage has been earned. Many claim that their business is to sell contracts, not goods. These claim that when they have executed a legal contract between shipper and buyer they have earned their brokerage. They say that it is not their business to take part in any wrangle over the acceptance or delivery of cars they have sold. It is up to the seller to enforce his legal remedies against the buyer if the latter rejects without cause, these brokers claim, and their brokerage was earned when the sale was made regardless of the outcome of the rejection. Likewise they claim, and with much logic, that if the car was rejected for good cause the shipper was

at fault for failure to fulfill his contract and their earnings should not be affected or reduced by his failure.

Other brokers say they do not think they can claim a brokerage unless the car is actually disposed of. Shippers agree with them and claim the broker has earned nothing unless his sale "sticks."

Year after year organized shippers and organized brokers continue their committees to negotiate, confer, and report annually. Meantime business continues with unstandardized and too often indefensible relationships. As matters now stand, it is too easy to be a broker and too difficult to conduct a brokerage business which is above reproach.

HEAR THE BROKER HIMSELF

The following extracts from the report of the chairman of a brokers' committee on "Code of Ethics" made in 1927 are significant. Note that in the opening sentence he frankly asserts that the broker must try to serve two masters.

> The American Fruit and Vegetable Broker, as a representative of both buyer and seller, is perhaps the most important focal point in the maintenance and development of ethical standards in the industry. . . .
>
> When we consider the ethical standards of this industry 25 years ago, we agree that the gain has been great. The mental attitude of both shippers and buyers has changed along with the development of those agencies which serve to eliminate the causes of misunderstandings and disputes, such as the establishment of grades, standard trading rules, and arbitration.
>
> . . . . . .
>
> Within the industry we find a certain percentage of the trade who look upon receivers as being beyond the possibility of moral regeneration and vice versa. Along with this the broker is often criticized by either party to the contract as favoring the other . . . .
>
> The day is close at hand when every unfair act of seller, buyer, or broker will be recorded through some agency whose power will be sufficient to correct business conducted contrary to ethical standards. . . . We have no efficient machinery at this

time to enforce completion of contracts by either seller or buyer. . . . Suits are always costly, and in some of the large cities may be continued for years. Arbitration is the ideal method of adjusting disputes. . . .

If the individual has a reputation for honesty, all things become possible. Since the nature of our business precludes the possibility of written contracts in many instances, and much business is done by word of mouth, honesty is easily recognized and rewarded. . . . In our industry accuracy in representation and intent are very closely allied with honesty. . . .

The members of this association recognize their responsibility to the industry and pledge themselves to improve their own practices to the end that the standard of the ethics shall continue to advance. The following code of ethics is recommended for adoption and for conspicuous display in the offices of our members.

I

That integrity, fair dealing, efficient service, are the bases for establishing confidence in our business.

II

That equitable treatment and consideration be given both buyer and seller.

III

That all contracts and undertakings, written or oral, are to be performed in letter and in spirit. Changed conditions do not justify their cancellation without mutual consent.

IV

Representation of goods and services should be truthfully made and scrupulously fulfilled.

V

That a constant effort will be made toward elimination of waste in any form.

VI

Inflation of credit, overexpansion, overbuying, overstimulation of sales, which create artificial conditions and produce crises and depressions, are condemned.

VII

Unfair competition, embracing all acts characterized by bad faith, deception, fraud or oppression, including commercial brib-

ery, is wasteful, and a public wrong. Our business should rely for its success on the excellency of its own service.

VIII

Controversies will, where possible, be adjusted by voluntary agreement or impartial arbitration.

IX

Responsibilities will be as courageously and conscientiously discharged by those acting in representative capacity as when acting for themselves.

X

Work hard, play fair, and your actions will make every buyer and seller your friend.

Much can be said in praise of this code, and its general acceptance would result in a tremendous improvement in trade relationships. Yet it is evident that it does not express satisfactorily the duty of an agent who is employed and paid by a principal. The implication of the code is that the broker is an independent business man in his own right and the servant of no one. The very language of this proposed code shows how nebulous is the brokers' idea of the true relationship of principal and agent. In spite of these ill-defined relationships, the use of brokers' services by large shippers is well-nigh universal.

RELATIONSHIPS WITH THE AUCTIONS

Just what relationships some of the terminal auction companies maintain with various factors in the trade many would like to know. It is evident that from simple selling agencies some of them have evolved into financing agencies. Reports current in 1927 indicate that some auctions have insured their volume of business by financing large shipping organizations perhaps even more liberally than will the banks. As the shipper has tied up the grower to whom he has made advances, so he has in turn obligated himself to the auction from which this same money was obtained.

The grower accepts money from the shipper and gives him the sale of his crop on the theory that the shipper is an experienced and skillful distributor. He is sometimes surprised that it seems best or necessary to the shipper to dispose of so many cars by the rather simple process of sending them to an auction.

Just who furnishes the money which the auction lends the shipper and just how is he reimbursed? Illumination on this point might reveal some further interesting relationships. Many auctions are owned by the buyers who are among their chief patrons. Is this suggestive?

THE SHIPPER'S VIEW OF TRADE RELATIONS

Men in the trade often tell their own story better than anyone can tell it for them. "Trade relations" is a live subject at trade conventions. The following is the address on this subject delivered by Mr. A. M. Pratt, of Orlando, Florida, at the annual business meeting of the American Fruit and Vegetable Shippers' Association in January, 1927.

Trade Relations

This subject of "Trade Relations" is big. I had reams written. I showed how we were all involved from the grower to the consumer—what wonderful strides we had taken in defining grades and trade terms—in creating a standard form of Sales Confirmation—in establishing Arbitration Boards—in working out other plans—and how necessary these things are. It was a real treatise. It was orthodox and proper, but I scrapped it because I felt we would again be worshipping mechanical symbols instead of sensing the facts of business and finding the practical way out.

During this time all of us were plugging away in the office trying to sell oranges and grapefruit on a rapidly declining market. On top of this, Christmas was coming. Christmas cards with their good will messages were being dropped on my desk. I was getting my cards out, and wrapping up Christmas packages. In the midst of it all one man in particular stands out. He bought a car. We diverted it to him, and the day before the

car arrived our agent wired that the fellow wouldn't take it. He offered no excuse—he just wouldn't take it, that's all. The part that Christmas played in the deal was the contrast between the almost universal belief in the Christmas spirit, and the way of the business world. We had lots more rejections—some justified—some not.

Why was it this way? Whose fault? What could be done to remedy it? There was the law—but law was slow and costly and hard to get a verdict in the other man's town on matters so hard to define as grades—with things handled as loosely as they are in the fruit and vegetable business. There was the Arbitration Board of this and other trade associations, but most of the sales were handled in such a way by our agents as to leave loopholes. Many were not using the standard form of Confirmation of Sale. Many had nothing in writing but our own interchange of wires. Could we make the agent use this form? Could we decline to pay brokerage if he didn't perform this part of the service? We could change agents, but not when we were in the midst of the pell-mell of selling—and maybe the next agent would be equally as negligent. More than that, we wanted sales. We wanted customers—anything to sell a car, and what was worse, any customer. It was a case of any port in the storm.

And that's the trouble. I knew some of the jobbers I sold had questionable ratings (including the particular fellow already mentioned), but I considered it a better bet to chance them than not to sell. Some of the cars sold to this type of operator were accepted, some not; but I took the chance. I suppose most of us do the same thing under stress and that's what keeps these fellows going. The biggest proportion of their supplies comes on a declining market. They buy therefore on an average at lower prices than their better type competitor, and they work the seller for further concessions in price when the car arrives, and we become a party to the deal in fostering such practices by allowing unjustified allowances on arrival and then wonder why jobbers with high standing seem to slip a notch or two occasionally when the market turns against them.

What good is accomplished by the *Blue Book*, the *Red Book*, by the reports from the American Fruit and Vegetable Shippers Association if we deliberately sell operators who we know have a reputation of insisting upon unjustified allowances? It takes two to make a bargain, and the seller is just as responsible as the buyer in being a party to a deal where the buyer expects to get an unfair allowance on arrival and where the seller knows

he does. How much of this sort of thing do we shut our eyes to when we find ourselves scouring the country for customers, on a tough market?

Then there's the selling on arrival idea. We can sell to such operators on arrival without allowances because there's no pretext for an adjustment—but are we any less guilty in building the business of such men this way than in making the expected allowance when the car arrives? Selling customers who ethically have no right to be in business is deliberately undermining the customer who is trying to play the game square.

If there are enough low-grade buyers in any town, the backing they get from "good" people like you and me is enough to drive the square dealer out of business. Maybe the reason that certain towns have the reputation of being a cut-throat market is because between us we have sold the low-grade operator so many times, in time of stress, that we, as well as the fellows at the other end, brought all business down to the low level existing.

We talk about law, arbitration, definition of grades and trade terms, and storm about the raw deals we get—but no matter how many laws we have, or regulations—we encourage the very practices we condemn whenever we sell to a bad actor or weakly knuckle under in making unfair allowances because the allowance is cheaper than a fight at the time.

Isn't it a fact that if every grower or shipper would decline to sell men with a questionable reputation, also decline to make any but justifiable allowances, we would just about correct the evil practices we fuss about? If we carried out such a program it would pay the buyer to be "good." As it is, aren't some of us paying the buyer to be "bad"?

What are we going to do about it? It's a tough problem. In the first place, many a time we don't really know whether an allowance is due or not. There's all kinds of chance for honest difference of opinion. Often when we have later seen the customer and agent and the three of us talked things over, we have found the fellows at the other end were right and we wrong. If every case where there was the slightest doubt was referred to an Arbitration Board wouldn't that board be swamped with business?

Then there's the policy allowance. The market has declined —the car is technically up to contract—but competitors have bought for less and we get a wire from our agent saying that as a matter of policy he recommends making an allowance—that the car is accepted but we ought to do something to help him

out. We know with the market as it is, that if he weren't on the square he would find some pretext for turning the car down and if we sold it elsewhere we would take far less money. We know too that we have allowed other jobbers who weren't so straight an allowance rather than divert. Should we say "no, a sale is a sale" and stand on our rights, or should we voluntarily make him the allowance we know we would have to make if he weren't playing the game fair with us? It is true, on the other hand, that we can never expect an additional price from him or any other buyer if the market jumps 50 cents or 75 cents while the car is en route. Aside from a matter of policy we know some other competitor in the same town has probably forced an allowance, and if we make our reliable customer pay 50 cents or 75 cents more for his article aren't we again placing a premium on dishonesty by forcing a loss on the straight shooter by our firmness?

Here again the seller, if he makes a policy allowance, pays for the looseness of his own competitors' business relations. He may be out of pocket on this car (not because he was forced to) but because the seller's competitors made allowances voluntarily or otherwise to this jobber's competitors. If no allowances were made voluntarily or otherwise to any jobber in a town they would all be on somewhere near the same competitive level and that is what they all want—if they cannot have a competitive advantage.

So even our benevolent goodwill allowance can at least theoretically be condemned from a standpoint of sound trade practice. If no allowances were granted voluntarily or otherwise, except as warranted by the merits of the goods instead of the market, it would be unsound to make even a friendly allowance, because here again the jobber would be afraid that his competitor would be getting some advantage through friendship that he did not try to use through his friendly relations. However, with the "as is" of business relations existing as they do today, I do not feel we should condemn ourselves for the friendly or even the policy allowance.

This brings us back to the Christmas side of our discussion. None of us like to be hard or tight. We believe in good will and friendliness. We like to give and take. The heart side of business has far more play in business than we give it credit for. It isn't all cold shrewdness. You will seldom find a man in the game who doesn't take strong exception to any statement or action that insinuates the slightest question of his sense of honor. He will admit that he has bad judgment at times,

and makes losses, but how many men have you bumped into who will admit they don't play fair.

When you make the rounds once a year to see the trade and talk man to man, what's the result? Don't you find your fancied grievances keep dwindling as you proceed on the trip? Don't you find you were as often wrong in your slant on some deal as the customer or agent was? Don't you find a conviction that your trade relations would be better as a whole if you had and showed more confidence rather than less? I do. Isn't a lot of our trouble due to not putting ourselves in the other fellow's shoes; a lot due to ignorantly or thoughtlessly antagonizing? The solution of better trade relations is—to *trade* relations—trade relations with the other fellow—make his problem as real as our own—then do the thing that is fair and practical. Every man in the business is a human being with pride and prejudices and emotions like our own. We tend to forget this at long distance, but don't we respond to the fellow who puts things right up to us on our honor? Don't you think the fellow at the other end of the line does too?

We are all pretty much alike. We are pushed for time—none of us do our job with the finish in fine lines we would like. It is a rough and ready affair where regardless of rules and regulations, laws and definitions, we muddle through each season the best we can. Confidence is supremely necessary—a vast amount of it. The trouble is, we usually think of the confidence we are trying to establish in ourselves, instead of reversing the operation and showing a whole-souled confidence in the man at the other end. In the 30 years I have been in business, my confidence in the trade and our agents has increased, not decreased. This has not been the result of sentiment—I probably had more sentiment 30 years ago. It is the result of hard jolts I have received on trips where time and again I found that, maybe like lots of other humans, I was prejudiced in my own favor and hadn't preserved as I should the confidence and belief in good will towards men being generally a sound basis for business procedure.

I have noticed that pocket markets are usually either of an exceptionally high standard of business ethics, or the reverse; but, taken as a whole, the markets from which a shipper cannot divert to protect himself are of a higher standard than those through which a stream of cars pours, where the jobber knows the shipper is not up against it if he doesn't sell. Take the Canadian trade as a whole—I don't believe it's because they are Canadian, but because they respond to the confidence placed

in them, in shipping their pocket markets subject to inspection, that they as a rule stand high in reputation. The same is true of most of the regular f.o.b. markets on the Pacific Coast, for the same reason.

Confidence breeds confidence—suspicion does not—and I'm inclined to think that in our trade relations (as in all relations in life) we come pretty near reaping what we sow. Some day we may find that the Golden Rule is not only ideally right, but thoroughly practical, and we will not only do to others as we would be done by, but we will do it first instead of doing them first, as the parody puts it; and the best thing about all this, if it is correct, is the fact that most of us have found it pretty hard to reform others, but we do find we can do something towards reforming ourselves—and if our problem of trade relations does rest mostly with ourselves, we can apply our own remedy.

We can start out with ourselves individually. Then we find competitively we can't afford to do some things we would like to do unless those in the same business make it customary. So we come next to ourselves collectively as a body representing, say, the citrus business in Florida. If we haven't enough sense, good will, and confidence to get together to put a stop to something that we could together correct, but which individually is impossible, isn't that fault ours?

Florida shippers are members of this and similar organizations. We therefore come to ourselves collectively in this organization. No matter how many definitions, resolutions, regulations, codes of ethics, or other beneficial things are adopted, unless we collectively make it worth while from a self-interest standpoint, to carry them out, we pay the penalty. I sometimes think trade organizations need teeth in their official actions, the same as laws do to make them effective.

If, for instance, membership in this organization was a privilege which would be withdrawn upon failure to carry out the spirit of our resolves, we might accomplish more. Suppose, for instance, that we not only could expel but did expel every member who ever failed to play fair with the buyer, or vice versa. Suppose on top of that we could and would expel every member who sold to questionable dealers, or who without good cause weakly made allowances to his customers when none were due. That would be hard stuff, but it might put a stop to the part we ourselves play in continually contributing to the delinquency of the buying trade. Individually we can't afford to take the stand that we could collectively.

Collectively we could remedy many things that can only be

remedied by custom and usage. Individually in many matters we are powerless—but we are never going to accomplish some of these collective possibilities by merely resolving what is right or merely defining them. We might accomplish them by making membership dependent upon carrying out certain courses to be mapped out. As it is now, we have not actually agreed to carry out many things we are supposed to believe in—say nothing of our being without executive power, morally or otherwise, to enforce such agreement. Has every member agreed to carry out the Standard Rules and Regulations? Has every member agreed to require all sales confirmed in writing by the Standard Form adopted? Isn't the chief difficulty in getting this form used, due to the fact that the other fellow (who is likely a member of this association) does not require it? Is there any agreement that every member shall, upon request of the other interested party, arbitrate any matter in dispute with the trade? How firm have we been with ourselves as members? Have any members been dropped because they would not arbitrate? Has any broker's associate-membership been declined because he did not want to bother with the Standard Confirmation of Sale? How many men or firms have been declined because of their moral standing in the trade?

I am not saying that these things should be done, but I am saying that the matter of bettering trade relations is in our own hands—first as individuals—next collectively—not merely to theorize or resolve about, but to find the practical means of application to ourselves, not to the other fellows. This organization has a great power for good, which it is not yet using. It has accomplished much. It can accomplish more, provided we as individuals authorize such power as to give teeth to its good intentions, so we will find it will pay us as members to carry out some simple fundamentals that its directors may possibly deem wise to enforce if we by chance are ready for this next step, from talking to doing.

And once again may I suggest that the general solution of better "trade relations" is—to *trade* relations.....

CHANGING RELATIONSHIPS IN THE COUNTRY

Growers have financed their own wars and many which they did not fight. We have noted that some cooperative marketing movements among producers seem to have been fostered by a spirit of hostility to all existing local agencies

of distribution. The basic plan on which much organizing was done contemplated monoply if it could be attained. The usual attitude of the cooperative was that of complete isolation. Other local shippers were competitors and were credited with having no interests in common. There has not always been openly destructive hostility between the growers' organizations and the independent or privately owned distributors or shippers, but there has been much of it.

In the absence of a cooperative there has sometimes been almost equally fierce competition for business among other local shippers.

The antitrust laws have restrained groups of shipping corporations from working together as closely and harmoniously as their common interests would have prompted them to do. But when, failing to cooperate, they have fought for sales by price cutting, it is the grower group which has paid the price.

Again and again we have seen prices cut and cut and auctions overloaded by shippers who claimed that they yielded only to a competition which could not be withstood. Some shippers have lost much money, but in the main the grower has paid the bill. It was the price of his product which was slashed to meet the cut which another distributor made in the price of his neighbor's product.

No one can ever know how many millions of dollars could have been saved the growers if coordinated marketing effort had been the rule since the World War. Instead we have had an alleged competition in rendering marketing service. At the same time we have had a surplus seeking an outlet. Agencies competing for outlets have considered little else than their ability to move the products in volume. The growers collectively have been the victims of the inevitable price slaughter.

In many districts a cooperative has held a large share of the total tonnage. Its officers have felt that if they had the field to themselves all would be well. But under the existing conditions of competition the cooperative has often been

unable to make quite as good a showing on average returns as some smaller, well-financed, experienced shippers. So a monopoly could not be obtained, and the war went on.

THE DAWN OF COORDINATED COMPETITION

This movement is so new to the industry that an outline of the idea must be accepted in lieu of exhaustive treatment. Briefly the bankers and investment companies which have large interests in some sections chiefly dependent on perishables have realized that competition in marketing has been destructively overdone.

Official and other agencies, dealing with the situation in a broad and impartial way, realize that the industry is of more importance than the success of any one type of business, or business group, within it.

Lawyers, studying the exemptions from antitrust laws which the farmers' marketing organizations enjoy, have discovered that there is a legal method of coordination. Organized farmers may employ whom they will. They may name the prices of their products and hold them till they spoil if they can stand the loss. They may make marketing contracts in which they retain their control of quotations and sales prices.

Distributors are learning that they can do business harmoniously and effectively under uniform contracts with a farmer group. These contracts may give a grower board of managers the right to appoint a quotation or price fixing committee below whose minimum price no shipper may sell.

The cooperatives are learning that their competitors are here to stay. They realize that the monopoly idea was a sad mistake. They must survive by the excellence of service rendered when compared with that given by experienced, efficient, private operators. The cooperative form of business must stand shoulder to shoulder with other forms of business doing the same job for the same producing community.

The city trade is learning that there can be effective control of shipments with uniform and undiscounted f.o.b. prices even in the face of heavy supplies.

Simultaneously with all this the grower is learning several things at once.

1. He can join a cooperative and have the advantages of the legal status of those organizations without putting the actual handling of his crop into unknown or untried hands.

2. Each member of his organization can choose his own selling agent from among all those who will sign a uniform contract, every provision of which is for his protection.

3. His new form of organization costs him next to nothing.

4. His board of directors or other governing body may be so selected as to contain farmer clients of all important local shipping interests.

5. Quotation or price fixing committees, serving under his directors, may well be selected from names submitted by the contracting distributors themselves. Their collective market sense is better than his own or that of his governing body composed of fellow farmers.

6. That markets will clean up a temporary surplus at a fixed price if the volume of inflow is rigidly controlled.

Each of these points he has seen demonstrated somewhere in the Continental United States during 1927. From it all he is awakening to a new consciousness of a possible deliverance. It is a deliverance which he can bring in almost at his will. He need no longer be the pawn in the marketing game nor supply the sinews of war for a conflict in which he is the inevitable victim. He sees a vision of a new set of trade relationships at his end of the line and he intends that they shall be both ordered and orderly. He is justly weary of financing an eternal guerrilla warfare between those who claim to serve him.

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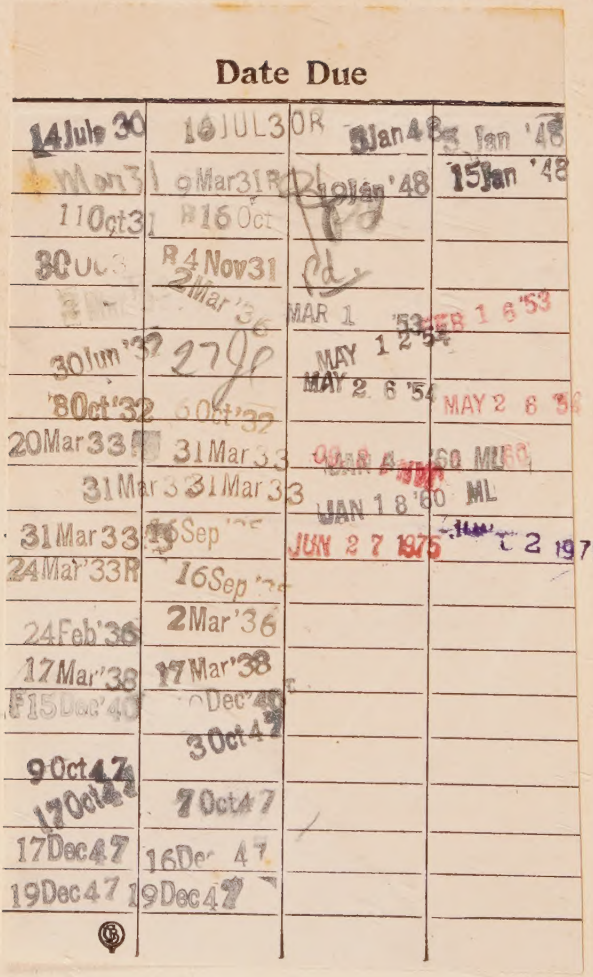

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